

9468-33

12/4/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

Michael Kellogg  
Ritter Chemical Company, LLC  
c/o Pyxis Regulatory Consulting, Inc.  
4110 136<sup>th</sup> St NW  
Gig Harbor, WA 98332

DEC - 4 2012

Subject: Label Amendment – Incorporate Supplemental Labeling into Master Label  
Kull 41S  
EPA Reg. No. 9468-33  
Application Dated – September 6, 2012

Dear Mr. Kellogg:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Submit one (1) copy of final printed labeling before you release the product for shipment. If you have any questions regarding this action, please contact Maggie Rudick at (307) 347-0257.

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis", enclosed within a large, hand-drawn oval.

Kable Bo Davis  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

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1135

**Master Label Includes:**

**Sublabel A: Container Label**

**Sublabel B: Agricultural and Non-Agricultural Uses Complete Directions for Use**

**Sublabel C: Industrial Use**

**Sublabel D: Conifer Release, Christmas Tree Applications, and Forestry Site Preparation**

**Sublabel E: Residential Use**

GROUP	9	HERBICIDE
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**KULL 41 S**

*[Alternate Brand Names: KULL 41, Alecto 41 S, Alecto 41, Alecto 41 UL, Alecto 41 HL, Lajj, and Lajj Plus]*

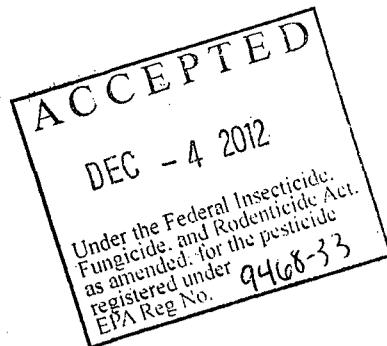
**Text in ( ) parenthesis are optional**

**Text in [ ] brackets is administrative only**

**EPA Reg. No.:** 9468-33

**EPA Est. No.:** 9468-OR-001; 9468-TX-001; 9468-TX-002; 47258-TX-01, 82784-GTM-001; 75460-CHN-001; 72949-CHN-001; 81346-CHN-001; 75464-CHN-001; 81347-CHN-001; 81889-CHN-001;

Manufactured for:  
Ritter Chemical LLC  
P.O. Box 430974  
Houston, TX 77243



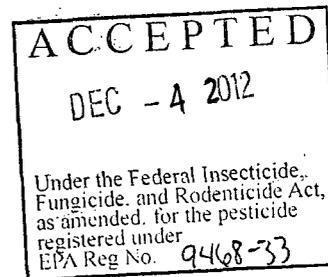
Sublabel A: Container Label

**KULL 41 S**

[Alternate Brand Names: **KULL 41, Alecto 41 S, Alecto 41, Alecto 41 UL, Alecto 41 HL, Lajj and Lajj Plus**]

GROUP	9	HERBICIDE
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Systemic Weed Control  
†Quality Assured



**ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt.....41.0%

**OTHER INGREDIENTS:** .....59.0%  
100.0%

\*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as KULL 41 S, EPA Reg. No.9468-33. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 9 a.m. to 5 p.m. After 5:00 p.m. call your poison control center at 1-800-222-1222.	
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

See (Inside) Booklet for Complete Precautionary Statements and Directions for Use.

EPA Reg. No. 9468-33  
EPA Est. No. 9468-OR-001; 9468-TX-001; 9468-TX-002; 47258-TX-01, 82784-GTM-001; 75460-CHN-001; 72949-CHN-001; 81346-CHN-001; 75464-CHN-001; 81347-CHN-001; 81889-CHN-001

Manufactured by: Ritter Chemical LLC  
P.O. Box 430974  
Houston, TX 77243  
(Formulated in the USA)

Net Contents:

†Ritter Chemical LLC warrants that this product conforms to the chemical description on the label.

**READ ENTIRE LABEL BEFORE USING THIS PRODUCT**

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION** – Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear long-sleeved shirt and long pants, socks, shoes and chemical resistant gloves.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, shoes plus socks and chemical-resistant gloves.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS**

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic, or plastic-lined steel containers. **DO NOT MIX, STORE OR APPLY THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

**STORAGE AND DISPOSAL**

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**Pesticide Storage:** Keep container closed to prevent spills and contamination. Store this product in a cool dry place out of reach of children and domestic animals. Store in original container only. Do not allow this product to freeze.

**Pesticide Disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

**Empty Container Disposal:****[FOR NONREFILLABLE CONTAINERS LESS THAN 5 GALLONS:]**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**[FOR NON-REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**[FOR REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**WARRANTY AND LIABILITY**

†Ritter Chemical LLC warrants that this product conforms to the chemical description on the label, and is reasonably fit for the purposes set forth in the "Complete Directions for Use" booklet labeling, when used in accordance with those Complete Directions for Use, under the conditions described therein. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE.** This warranty is also subject to the conditions and limitations stated herein.

[EPA approval date]

6/135

**Sublabel B: Agricultural and Non-Agricultural Use Label**

# KULL 41 S

[Alternate Brand Names: KULL 41, Alecto 41S  
and Alecto 41 UL, Alecto 41 HL, Lajj and Lajj Plus]

GROUP	9	HERBICIDE
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*Systemic Weed Control*  
*†Quality Assured*

EPA Reg. No. 9468 -33

EPA Est. No. 9468-OR-001; 9468-TX-001; 9468-TX-002; 47258-TX-01, 82784-GTM-001; 75460-CHN-001; 72949-CHN-001; 81346-CHN-001; 75464-CHN-001; 81347-CHN-001; 81889-CHN-001

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS,  
EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS  
SPECIFIED FOR INDIVIDUAL ROUNDUP READY® CROPS),  
DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR  
DESTRUCTION MAY RESULT.

**Herbicide for Roundup Ready® Crops.**

Selective broad-spectrum weed control in Roundup Ready ®  
crops. Non-selective, broad-spectrum weed control for many  
cropping systems, farmsteads and Conservation Reserve  
Program acres.

Not all products directed on this label are registered for use in California. Check the registration status of each product in California before using.

Read the entire label before using this product. Use only according to label instructions.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. RITTER CHEMICAL LLC DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

## 1.0 INGREDIENTS

**ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl)glycine,  
in the form of its isopropylamine salt ..... 41.0%

OTHER INGREDIENTS: ..... 59.0%  
100.0%

\*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

## 2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL COLLECT, 1-713-463-5407

2. IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT, OR FOR MEDICAL ASSISTANCE, call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 9 a.m. to 5 p.m. After 5:00 p.m. call your poison control center at 1-800-222-1222.

### 3.0 PRECAUTIONARY STATEMENTS

#### 3.1 CAUTION: Hazards to Humans and Domestic Animals

Keep Out Of Reach Of Children  
**CAUTION**

CAUSES MODERATE EYE IRRITATION. Avoid contact with eyes or clothing. Wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves.

FIRST AID	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as KULL 41 S, EPA Reg. No.9468-33. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 9 a.m. to 5 p.m. After 5:00 p.m. call your poison control center at 1-800-222-1222.	
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

† Ritter Chemical LLC warrants that this product conforms to the chemical description on the label.

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

#### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, and shoes plus socks, and chemical-resistant gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### 3.2 Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

### 3.3 Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Ritter Chemical LLC Supplemental Labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves greater than 14 mils in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, and shoes plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep people and pets off treated areas until spray solution has dried.

#### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. **Pesticide Storage:** Keep container closed to prevent spills and contamination. Store this product in a cool dry place out of reach of children and domestic animals. Store in original container only. Do not allow this product to freeze.

**Pesticide Disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

**Container Disposal:**

[FOR NONREFILLABLE CONTAINERS LESS THAN 5 GALLONS:]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent)

promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[FOR NON-REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[FOR REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### 4.0 PRODUCT INFORMATION

##### (How this product works)

**Product Description:** This product is a postemergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

**Time to Symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visible symptoms. Visible effects are a gradual wilting and yellowing of the plant that advances to complete browning of above-ground growth and deterioration of underground plant parts.

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES" for recommendations for specific weeds.

Always use the higher rate of this product per acre within the labeled range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

**Cultural Considerations:** Reduced control may result when applications are made to annual or perennial

weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

**Rainfastness:** Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

**Spray Coverage:** For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

**Mode of Action:** The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to formation of specific amino acids.

**No Soil Activity:** Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes.

**Tank Mixing:** This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly directed in this labeling. Mixing this product with herbicides or other materials not listed on this label may result in reduced performance.

**Annual Maximum Use Rate:** Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts of this product per acre per year. For applications in non-crop sites or in tree, vine, or shrub crops, the combined total of all treatments must not exceed 10.6 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

**NOTE:** Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

## 5.0 WEED RESISTANCE MANAGEMENT

Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or by using other cultural or mechanical practices.

### 5.1 Weed Management Practices

To minimize the occurrence of glyphosate-resistant biotypes observe the following basic weed management practices:

- Scout your fields before and after herbicide application.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Use the application rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism), or with ones that encourage application rates of this product below those specified on this label.

- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Use new commercial seed that is as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Ritter Chemical LLC representative, local retailer, or county extension agent.

## 5.2 Management of Glyphosate-Resistant Biotypes

Note: Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your Ritter Chemical LLC representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the internet [www.weedresistancemanagement.com](http://www.weedresistancemanagement.com) or [www.weedscience.org](http://www.weedscience.org). For more information see the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" in this label.

Directions for the control of biotypes confirmed to be resistant to glyphosate are made available on seperately published supplemental labeling or Fact Sheets for this product and can be obtained from your local retailer or Ritter Chemical LLC representative.

Since the occurance of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, Ritter Chemical LLC is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

**The following good agronomic practices can reduce the spread of confirmed glyphosate resistant biotypes:**

- If a naturally occurring resitant bio-type is present in your field, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) can also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Scout treated fields after herbicide application and control weed escapes, including resistant biotypes, before they seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

## 6.0 MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

**NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.**

### 6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the directed amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate bypass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

### 6.2 Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum, or an alternate mode of action. Read and follow all label directions of all products in the tank mixture.

Some tank-mix products have the potential to cause crop injury under certain circumstances, at certain growth stages and/or under other circumstances. Read the label for all products used in the tank mixture prior to use to determine the potential for crop injury.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers could result in reduced weed control or crop injury. Buyer and all users are responsible for any and all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified on this label, or in separate supplemental labeling or Fact Sheets published for this product.

When a tank mixture with a generic active ingredient such as 2,4-D, atrazine, dicamba, diuron, or pendimethalin is described on this label, the user is responsible for ensuring that the specific application being made is included on the label of the specific product being used in the tank mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities in advance.

For best results, apply tank mixtures with this product at a minimum spray volume rate of 10 gallons per acre.

### 6.3 Tank Mixing Procedure

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20- to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If ammonium sulfate is used add it slowly through the screen into the tank. Continue agitation. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding other products.
4. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
5. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
7. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive and water soluble liquid.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to the "Tank Mixing" section of "PRODUCT INFORMATION" for additional precautions.

### 6.4 Mixing for Hand-Held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

#### Spray Solution

Desired Volume	Amount of KULL 41 S					
	1/2%	1%	1 1/2%	2%	5%	10%
1 gal	2/3 oz	1 1/3 oz	2 oz	2 2/3 oz	6 1/2 oz	13 oz
25 gal	1 pt	1 qt	1 1/2 qt	2 qt	5 qt	10 qt
100 gal	2 qt	1 gal	1 1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

### 6.5 Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, particularly under hard water conditions, drought conditions or when tank mixed with certain residual herbicides, on annual and perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

**NOTE:** When using ammonium sulfate, apply this product at rates directed in this label. Lower rates will result in reduced performance.

### 6.6 Surfactants

For KULL 41 S and Alecto 41 S only (formulation containing complete amount of surfactant):  
(No additional surfactant in the spray solution is needed or recommended). This includes additives containing surfactants, buffering agents or pH adjusting agents when this product is the only pesticide used unless otherwise directed. Ammonium sulfate, drift control additives, or dyes and colorants may be used. See the "MIXING" section of this label for instructions.

[For KULL 41 HL, Alecto 41 HL— containing 7.5% surfactant load]  
Nonionic surfactants which are labeled for use with herbicides may be used.

Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient.

Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

For KULL 41 and Alecto 41UL – formulations without surfactant

This product requires the use of a nonionic surfactant. When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of surfactant may enhance performance.

Examples of when to use the higher surfactant rate include, but are not limited to: hard-to-control woody brush, trees and vines, high water volumes, adverse environmental conditions, tough-to-control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc. These surfactants should not be used in excess of 1 quart per acre when making broadcast applications. Always read and follow the manufacturer's surfactant label recommendations for best results. Carefully observe all cautionary statements and other information appearing in the surfactant label. When applied as recommended under conditions described, this product controls annual and perennial weeds listed in the label booklet. Do not reduce rates of this product when adding surfactant. Do not add buffering agents or pH adjusting agents to the spray solution when (product brand name) is the only pesticide used.

### 6.7 Colorants or Dyes

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

### 6.8 Drift Control Additives

Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and Controlled Droplet Applicator (CDA) equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label. The use of drift control additives can affect spray coverage which may result in reduced performance.

## 7.0 APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which

treatment was not intended.

This product may be applied with the following application equipment:

**Aerial**—Fixed Wing and Helicopter

**Ground Broadcast Spray**—Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

**Hand-Held or High-Volume Spray Equipment**—Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers\*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

\*This product is not registered in California or Arizona for use in mistblowers.

**Selective Equipment**—Recirculating sprayers, shielded and hooded sprayers, wiper applicators and sponge bars.

**Injection Systems**—Aerial or ground injection sprayers.

**Controlled Droplet Applicator (CDA)**—Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

### 7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

Use the directed rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 1 quart per acre. Refer to the individual use area sections of this label for recommended volumes, application rates, and further instructions.

This product plus dicamba tank mixtures may not be applied by air in California.

For Aerial Applications in Fresno County, California or Mississippi, see below for specific instructions, restrictions, and requirements in those regions.

Ensure uniform application—to avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

#### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see the "Wind", "Temperature and Humidity", and "Temperature Inversions" sections of this label).

#### Controlling Droplet Size

- **Volume:** Use high-flow-rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher-flow-rate

- nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height:** Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

**Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller droplets, etc.).

**Wind**

Drift potential is lowest between wind speeds of 2 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 miles per hour due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

**Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas**

The product must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Avoid direct application to any body of water.

**Aircraft Maintenance**

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

**FOR AERIAL APPLICATION IN CALIFORNIA ONLY**

Aerial applications of this product are allowed in the following situations:

1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
2. In alfalfa and pasture renovation applications.
3. Over-the-top applications in Roundup Ready® corn and cotton.
4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready® corn and Roundup Ready® cotton.

Do not plant subsequent crops other than those listed in the label booklet for 30 days following application.

When tank mixing this product with 2,4-D, only 2,4-D amine formulations may be used for aerial applications in California. Tank mixtures with 2,4-D amine formulations may be applied by air in California for fallow and reduced tillage systems and alfalfa and pasture renovation applications only. This product, when tank mixed with dicamba, may not be applied by air in California.

**DO NOT EXCEED A MAXIMUM RATE OF 2 QUARTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW AND REDUCED TILLAGE SYSTEMS AND ALFALFA AND PASTURE RENOVATION APPLICATIONS.**

**DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN ALFALFA, CORN, COTTON, WHEAT, ROUNDUP READY® CORN AND ROUNDUP READY® COTTON PRIOR TO HARVEST. THIS RESTRICTION ALSO APPLIES TO OVER-THE-TOP APPLICATIONS IN ROUNDUP READY® CORN AND COTTON.**

**Aerial Equipment**

Use the directed rates of this product in 3 to 15 gallons of water per acre.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.
5. Apply by air only to non-residential areas.

When applied as directed under the conditions described, this product controls annual and perennial weeds as listed in the label booklet.

**FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY**

See "PRODUCT INFORMATION", "MIXING", "APPLICATION EQUIPMENT AND TECHNIQUES" and "SPRAY DRIFT MANAGEMENT" sections of the label booklet for essential product information prior to making aerial application.

See "CROPS" section of the label booklet for specific directions on the use of this product.

**AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY® CROPS), DESIRABLE PLANTS AND TREES BECAUSE SEVERE INJURY IS LIKELY TO RESULT.**

**FOR FRESNO COUNTY, CA ONLY**  
**From February 15 through March 31 only**

For aerial application outside these dates, refer to the above section of this label.

This section only applies to the area contained inside the following boundaries within Fresno County, California only.

- North: Fresno County line
- South: Fresno County line
- East: State Highway 99
- West: Fresno County line

**Product Information**

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of KULL 41S. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

**Written Directions**

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

**Aerial Applicator Training and Equipment**

Aerial application of KULL 41S is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-in" constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

**Application at night** - Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

To report known or suspected misuse of this product, call 1-800-332-3111.

For additional information on the proper aerial application of this product, call 916-784-1718.

**Note:** For aerial application from April 1 through February 14, refer to the other sections of this label.

**FOR AERIAL APPLICATIONS IN MISSISSIPPI**

**Aerial Application Restrictions:**

Aerial application is prohibited in Zone I, south of Highway 8 in the counties listed below, from March 15 through April 30, except by permit from an authorized employee of the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (Ph. 1-888-257-1285).

Aerial application is prohibited in Zone II, north of Highway 8 in the counties listed below, from March 25 through April 30, except by permit from an authorized employee of the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (Ph. 1-888-257-1285).

The Bureau of Plant Industry may at anytime, based on current planting and environmental conditions modify the above restrictions for either zone or county therein.

**Zone I:** South of Highway 8 in the counties of Bolivar, Sunflower, Leflore, and Grenada plus the entire counties of Carroll, Holmes, Humphreys, Washington, Sharkey, Issaquena, Yazoo and Warren.

**Zone II:** North of Highway 8 in the counties of Bolivar, Sunflower, Leflore, and Grenada plus the entire counties of Tallahatchie, Tate, Quitman, Coahoma, Tunica, Panola and Desoto.

**AERIAL APPLICATION IN ARKANSAS ONLY**

AVOID DRIFT. DO NOT APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the labeled rate of this product in 3 to 15 gallons of water per acre.

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are recommended.

Applications are typically to be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

The distance of the outermost nozzles on the boom must not exceed 75 percent of the length of the wingspan or rotor. In many cases, reducing this distance to 65 percent of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.

Do not apply this product when winds are in excess of 10 mph.

Do not apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 mph.

Use the following guidelines when applications are made near crops or other desirable vegetation:

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 mph is blowing towards desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 mph toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

### 7.2 Ground Broadcast Equipment

Use the directed rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat spray nozzles. Check for even distribution of spray droplets.

### 7.3 Hand-Held or High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only. For directed rates and timing, refer to the "ANNUAL WEEDS--HAND-HELD OR HIGH-VOLUME EQUIPMENT" section of this product label.

### 7.4 Selective Equipment

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any non-crop site specified on this label.

In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row middles (in between rows of crop plants) where any dripping or leaking will not contact crop foliage. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mists or dripping onto crop. Wipers over the-top of crops may be used only when specifically recommended in this product's labeling.

**AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators used above desirable vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

**Recirculating Spray System**

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

**Shielded and Hooded Applicators**

When applied under the conditions described in the following paragraphs for shielded and hooded applications, this product at directed rates will control those weeds listed in the "ANNUAL WEEDS RATE TABLE" and "PERENNIAL WEEDS RATE TABLE" sections of this label. A hooded sprayer is a type of shielded applicator where the spray pattern is fully enclosed including top, sides, front and back, thereby shielding the crop from the spray solution. Keep shields on these sprayers adjusted to protect desirable vegetation. When applying to crops grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

Use hoods designed to minimize excessive dripping or run-off down the insides of the hoods. A single, low pressure/ low drift flat-fan nozzle with an 80 to 95 degree spray angle positioned at the top center of the hood is recommended. Spray volume should be 20 to 30 gallons per acre.

These procedures will reduce the potential for crop injury:

- The spray hoods must be operated on the ground or skimming across the ground.
- Leave at least an 8-inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 miles per hour to avoid bouncing of the spray hoods.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles that provide uniform coverage within the treated area.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

**Wiper Applicators**

When applied under the conditions described in the following paragraphs, this product **CONTROLS** many weeds, including volunteer corn, Texas panicum, common rye, shattercane, sicklepod, spanishneedles and bristly starbur; and **SUPPRESSES** many weeds including Florida beggarweed, Bermudagrass, hemp dogbane, dogfennel, guineagrass, johnsongrass, milkweed, silverleaf nightshade, redroot pigweed, giant ragweed, smutgrass, sunflower, Canada thistle, musk thistle, vaseygrass, velvetleaf.

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if two applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water. Do not add surfactant to the herbicide solution.

**For Rope or Sponge Wick Applicators**—Mix 1 gallon of this product with 2 gallons of water to prepare 33 percent solution. Apply this solution to weeds listed above in this section.

**For Panel Applicators**—Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators.

### 7.5 Injection Systems

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the concentrate of other products when using injection systems.

### 7.6 CDA Equipment

The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 2 to 15 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 miles per hour (2 to 4 quarts per acre).

Controlled droplet application equipment produces a spray pattern that is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

### 8.0 ANNUAL AND PERENNIAL CROPS (Alphabetical)

**NOTE:** THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED CROPS WITHIN SECTION 8 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

See the "ROUNDUP READY CROPS" section of this label or separately published Ritter Chemical LLC Supplemental Labeling for instructions for treating Roundup Ready crops.

**TYPES OF APPLICATIONS:** Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, and Post-Harvest Treatments.

#### USE INSTRUCTIONS:

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergent to annual and perennial crops listed in this label, except where specifically limited. For any crop not listed in this label, applications must be made at least 30 days prior to planting. Unless otherwise specified, weed control applications may be made according to the rates listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS", and "WOODY BRUSH AND TREES RATE TABLES" in this label. Repeat applications may be made up to a maximum of 8 quarts per acre per year.

Post-directed hooded sprayers and wiper equipment capable of preventing all crop contact with herbicide solutions may be used in mulched or unmulched row middles after crop establishment. Where specifically noted below, wipers may also be used above certain crops to control tall weeds. Refer to the "Selective Equipment" section of this label for essential precautions when using hooded sprayers or wipers to avoid crop injury caused by leakage of spray mists or dripping onto crops. Crop injury is possible with these applications

and shall be the sole responsibility of the applicator.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

**PRECAUTIONS:** Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.

**RESTRICTIONS:** When making preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

In crops where spot treatments are allowed, do not treat more than 10 percent of the total field to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.

For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

### 8.1 Cereal and Grain Crops

**LABELED CROPS:** Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types), Wild Rice.

**RESTRICTION:** Do not treat rice fields or levees when field contains water.

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Red Rice Control Prior to Planting Rice, Spot Treatment (except Rice), Over-the-Top Wiper Applications (Feed Barley and Wheat only), Preharvest (Feed Barley and Wheat only).

#### Preplant, Preemergence, At-Planting

**USE INSTRUCTIONS:** This product may be applied before, during or after planting of cereal crops. Applications must be made prior to emergence of the crop.

#### Red Rice Control Prior to Planting Rice

**USE INSTRUCTIONS:** Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may be only partially controlled.

**PRECAUTION:** Avoid spraying during low humidity conditions, as reduced control may result.

**RESTRICTIONS:** Do not treat rice fields or levees when the fields contain floodwater. Do not re-flood treated fields for 8 days following application.

#### Spot Treatment (except Rice)

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.

**RESTRICTION:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

#### Over-the-Top Wiper Applications (Feed Barley and Wheat only)

**USE INSTRUCTIONS:** Wiper applications may be used in feed barley and wheat. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, and when the rye is at least 6

inches above the wheat crop.

**RESTRICTIONS:** Allow at least 35 days between application and harvest. Do not use roller applicators.

**Preharvest (Feed Barley and Wheat only)**

**USE INSTRUCTIONS:** This product provides weed control when applied prior to harvest of wheat or feed barley. For wheat, apply after the hard-dough stage of grain (30 percent or less grain moisture). For feed barley, apply after the hard-dough stage and when the grain contains 20 percent moisture or less. Stubble may be grazed immediately after harvest.

This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

**PRECAUTION:** Preharvest application is not to be used for wheat or barley grown for seed, as a reduction in germination or vigor may occur.

**RESTRICTIONS:** Do not apply more than 1 quart of this product per acre. Allow 7 days between application and harvest or grazing.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4D or dicamba may be used.

**RESTRICTIONS:** For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

**For Non-Selective Control of Listed Annual Weeds in Small Grain Cropping Systems (Distribution and Use only Within South Dakota)**

For ground application, apply in 3 to 5 gallons of water per acre. For aerial application, apply in 2 to 3 gallons of water per acre.

**ATTENTION**

**AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.**

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this herbicide can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. **AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.**

**NOTE:** To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

Adjust boom height on ground equipment to prevent streaked, overlapped or uneven application. Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets.

For aerial application, do not angle nozzles forward into the airstream, and do not increase spray volume by increasing nozzle pressure.

Ensure uniform application. Use appropriate marking devices when applying herbicides by air.

Avoid spraying when weeds are subject to moisture stress, when dust is on foliage, or when straw canopy covers the weeds.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residue of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO**

UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF PART.

LANDING GEAR IS MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) that meets aerospace specification MIL-C-38413 may prevent corrosion.

**Control of Barnyardgrass (*Echinochloa crus-galli*) in Rice Using Renovation Treatment in California Only**

**Renovation Treatment**

**USE INSTRUCTIONS:** This product may be applied as a renovation treatment in rice crops to control barnyardgrass infestations using ground broadcast spray or hand-held equipment. Renovation is defined as herbicide treatment that will produce crop and weed destruction in an entire field or contiguous area treated within a field.

**PRECAUTIONS:** Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

**RESTRICTIONS:** The rice straw and stubble from the treated area, including a 25-foot buffer zone on all sides, shall not be used for grazing, animal bedding or any feed purposes. Aerial application is not permitted for rice renovation.

**8.2 Corn**

**TYPES OF CORN:** Field Corn, Seed Corn, Silage Corn, Sweet Corn and Popcorn.

**TYPES OF APPLICATIONS:** Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Applications in Row-Middles, Preharvest and Post-Harvest Treatments.

For Roundup Ready corn, see the ROUNDUP READY CROPS section of this label.

**USE INSTRUCTIONS:** This product may be applied alone or in a tank-mixture before, during or after planting corn. Applications must be made prior to emergence of the crop.

**TANK MIXTURES:** Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

2,4-D	Frontier®/Outlook®
Aim®	FulTime®
Atrazine	Guardman®/Leadoff®
Axiom®	Harness®
Balance®	Harness Xtra
Banvel®/Clarity®	Harness Xtra 5.6L
Bicep MAGNUM®	Lariat®
Bicep II MAGNUM®	Lasso®/Alachlor
Bullet®	Linex®/Lorox®
Degree®	Marksman®
Degree Xtra®	Micro-Tech®
Distinct®	Prowl®
Dual MAGNUM®	Python®
Dual II MAGNUM®	Simazine
Epic®	TopNotch®

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

**RESTRICTIONS:** Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. For Southern states, do not apply in nitrogen solutions to tough-to-control grasses such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. The area covered by these directions includes from Route 50 South in Illinois and Indiana and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

**Hooded Sprayers**

**USE INSTRUCTIONS:** This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

**PRECAUTIONS:** Corn must be at least 12 inches tall, measured without extending leaves. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

**RESTRICTIONS:** Do not apply more than 1 quart of this product per acre for each application and no more than 3 quarts per acre per year for hooded sprayer applications.

**Spot Treatment**

**USE INSTRUCTIONS:** For spot treatments, apply this product prior to silking of corn.

**RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Preharvest

**Preharvest**

**USE INSTRUCTIONS:** Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 3 quarts of this product per acre. For aerial applications, apply up to 2 quarts of this product per acre.

**RESTRICTIONS:** Allow a minimum of 7 days between application and harvest. Preharvest application is not to be used for corn grown for seed, as a reduction in germination or vigor may occur.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied after harvest of corn. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**Preplant, At-Planting, Preemergence**

Apply a tank mixture of this product (32 fluid ounces per acre) plus 2,4-D (0.5 pound active ingredient per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting.

Dicamba may be included in the tank mixture with this product. Refer to the dicamba product label for the time intervals that are required between application and planting, and other geographic use restrictions.

Atrazine (1 to 2 pounds active ingredient per acre) may be included in the tank mixture to provide residual control. Refer to the atrazine product label for specific use instructions.

**Control and Management of Glyphosate-Resistant Amaranthus spp.  
(Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**Management of Glyphosate-Resistant Amaranthus spp.**

If a naturally occurring glyphosate-resistant biotype of an Amaranthus species is present, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are registered in each state or for all sites or crops for the management of Amaranthus spp. When KULL 41 S is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Preplant, At-Planting, Preemergence to Corn**

Apply KULL 41 S, to control emerged weeds, in a tank-mix with a preemergence residual herbicide such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or another residual herbicide for the control of Amaranthus spp.

**Control and Management of Glyphosate-Resistant Common and Giant Ragweed (Ambrosia spp.)  
(Not Approved for this Use in California)**

**Management of Glyphosate-Resistant Ragweed Species**

To control a naturally occurring glyphosate-resistant biotype of common or giant ragweed, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are labeled for management of ragweed species in all states or for all sites and crops. When this product is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Preplant, At-Planting, Preemergence to Corn**

Apply this product, to control emerged weeds, in a tank-mix with a preemergence residual herbicide containing atrazine, such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or another residual herbicide for the control of ragweed species prior to the emergence of corn.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury.

Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of ragweed species. When a tank-mix with a generic active ingredient, such as 2,4-D or atrazine is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small

proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**Control and Management of Glyphosate-Resistant Johnsongrass (Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in corn cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Preplant, At-Planting, Preemergence**

Control emerged weeds with a burndown application prior to planting or the emergence of corn. For burndown, apply this product before, during or after planting, but prior to crop emergence, to control a broad spectrum of emerged weeds, along with Harness Xtra, Harness Xtra 5.6L, or Degree Xtra for additional weed control and suppression of emerged johnsongrass.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury.

Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**8.3 Cotton**

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Selective Equipment, Spot Treatment, Preharvest.

For Roundup Ready cotton, see the "ROUNDUP READY CROPS" section of this label.

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting cotton. Applications must be made prior to emergence of the crop.

**Hooded Sprayer, Selective Equipment**

**USE INSTRUCTIONS:** This product may be applied through hooded sprayers, recirculating sprayers, shielded applicators or wiper applicators in cotton. Allow at least 7 days between application and harvest.

**RECOMMENDATION:** See the "Selective Equipment" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

**Spot Treatment**

**USE INSTRUCTIONS:** For spot treatments, apply this product prior to boll opening of cotton.

**RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

**Preharvest**

**USE INSTRUCTIONS:** This product provides weed control and cotton regrowth inhibition when applied prior

to harvest of cotton. For weed control, apply at rates given in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES" sections of this label. For cotton regrowth inhibition, apply 1 pint to 2 quarts of this product per acre.

Up to 2 quarts of this product may be applied using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

**TANK MIXTURES:** This product may be tank mixed with DEF<sup>®</sup> 6, Folex<sup>®</sup>, Ginstar<sup>®</sup>, or Prep<sup>®</sup> to provide additional enhancement of cotton leaf drop.

**RESTRICTIONS:** Allow a minimum of 7 days between application and harvest of cotton. Preharvest application is not to be used for cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES, OTHER THAN THOSE LISTED ON THIS LABEL, FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

**Control and Management of Glyphosate-Resistant Horseweed (*Marestail, Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**Preplant**

For control of horseweed, apply this product (32 fluid ounces per acre) in a tank-mix with Clarity (8 fluid ounces per acre). This application must be made 21 to 35 days before planting and before horseweed reaches 6 inches in height. In order to avoid crop injury, a minimum interval of 21 days during which there is at least 1 inch of cumulative rainfall must occur between Clarity application and planting of cotton.

2,4-D may be included in the tank mixture with this product. Refer to the 2,4-D product label for the time intervals that are required between application and planting and other geographic use restrictions.

**Control and Management of Glyphosate-Resistant Amaranthus spp. (Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**Management of Glyphosate-Resistant Amaranthus spp.**

If a naturally occurring glyphosate-resistant biotype of an Amaranthus species is present, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are registered in each state or for all sites or crops for the management of Amaranthus spp. When KULL 41 S is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Preplant, At-Planting, Preemergence**

Apply KULL 41 S, to control emerged weeds, in a tank-mix with a preemergence soil residual herbicide product labeled for control of Amaranthus spp., such as pendimethalin (Prowl H<sub>2</sub>O) and/or fluometuron (Cotoran).

**Control and Management of Glyphosate-Resistant Common and Giant Ragweed (*Ambrosia* spp.)**

**(Not Approved for this Use in California)**

**Management of Glyphosate-Resistant Ragweed Species**

To control a naturally occurring glyphosate-resistant biotype of common or giant ragweed, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are labeled for management of ragweed species in all states or for all sites and crops. When this product is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Preplant, At-Planting, Preemergence**

**Preemergence to glyphosate-resistant common ragweed species**

For burndown application, apply this product, to control emerged weeds, in a tank-mix with a preemergence broadleaf herbicide such as Clarity or 2,4-D. For preplant applications, 2,4-D may be added to the tank-mix to help control emerged broadleaf weeds. Follow label instructions regarding application timing relative to planting cotton. For applications after planting but prior to the emergence of cotton, apply this product, to control emerged weeds, in a tank-mix with the preemergence residual herbicide Cotoran for continued control of common ragweed.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury.

Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of ragweed species. When a tank-mix with a generic active ingredient, such as 2,4-D or atrazine is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**Control and Management of Glyphosate-Resistant Johnsongrass  
(Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in cotton cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Preplant, At-Planting, Preemergence**

Control emerged weeds with a burndown application prior to planting or the emergence of cotton. For burndown, apply this product before, during or after planting cotton, but prior to crop emergence, to control a broad spectrum of emerged weeds. For additional control or suppression of rhizome johnsongrass prior to planting cotton apply this product along with a product containing pendimethalin or trifluralin. For additional control of emerged johnsongrass, apply this product in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus(sethoxydim).

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury.

Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

### 8.4 Fallow Systems

**LABELED CROPS:** This product may be applied during the fallow period prior to planting or emergence of any crop on this label.

**TYPES OF APPLICATIONS:** Chemical Fallow, Preplant Fallow Beds, Aid-to-Tillage.

#### Chemical Fallow

**USE INSTRUCTIONS:** This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. Applications up to 2 quarts per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

**PRECAUTIONS:** Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

**RESTRICTIONS:** For any crop not listed on this label, applications must be made at least 30 days prior to planting. Do not apply dicamba tank mixtures by air in California.

#### Preplant Fallow Beds

**USE INSTRUCTIONS:** This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made at least 30 days prior to planting. This product will control weeds listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS", and "WOODY BRUSH AND TREES RATE TABLES" sections of this label.

**TANK MIXTURES:** In addition, 12 fluid ounces of this product plus 2 to 3 fluid ounces of Goal<sup>®</sup> 2XL per acre will control the following weeds with the maximum height or length indicated: 3 inches—common cheeseweed, chickweed, groundsel; 6 inches—London rocket, shepherd's-purse.

16 fluid ounces of this product plus 2 to 3 fluid ounces of Goal 2XL per acre will control the following weeds with the maximum height or length indicated: 6 inches—common cheeseweed, groundsel, marestalk (*Conyza canadensis*), 12 inches—chickweed, London rocket, shepherd's-purse.

#### Aid-to-Tillage

**USE INSTRUCTIONS:** This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage.

**PRECAUTION:** Tank mixtures with residual herbicides may result in reduced performance.

### 8.5 Grain Sorghum (Milo)

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Spot Treatment, Over-the-Top Wiper Applications, Preharvest.

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied alone or in tank-mixture before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop.

**TANK MIXTURES:** Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

- Atrazine                      Lariat
- Bicep II MAGNUM        Lasso
- Bullet                        Micro-Tech
- Dual II MAGNUM

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.

**Spot Treatment, Over-the-Top Wiper Applications**

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in grain sorghum. Make spot treatments before heading of milo. This product may be applied with wiper applicators to control or suppress the weeds listed under "Wiper Applicators" in the "Selective Equipment" section of this label.

**RESTRICTIONS:** For spot treatment, do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason. For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

**Hooded Sprayers**

**USE INSTRUCTIONS:** This product may be used through hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

**PRECAUTIONS:** Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

**RESTRICTIONS:** Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 1 quart of this product per acre per application and no more than 3 quarts per acre per year for hooded sprayer applications.

**Preharvest**

**USE INSTRUCTIONS:** Make applications at 30 percent grain moisture or less.

**PRECAUTION:** Preharvest application is not to be used for sorghum grown for seed, as a reduction in germination or vigor may occur.

**RESTRICTIONS:** Do not apply more than 2 quarts of this product per acre. As with other herbicides that cause sudden plant death, avoid preharvest applications of this product to milo infected with charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest of sorghum. The use of this product for preharvest grain sorghum (milo) is not registered in California.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied after harvest of grain sorghum. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression.

**RESTRICTION:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

### 8.6 Herbs and Spices

**LABELED CROPS:** Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or chinese parsley), Coriander seed (cilantro), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Over-the-Top Wiper Applications (Peppermint and Spearmint only), Spot Treatments (Peppermint and Spearmint only).

**PRECAUTIONS:** When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system.

**RECOMMENDATION:** For some crops below, it is recommended to make applications 3 days before transplanting or planting.

#### Over-the-Top Wiper Applications, Spot Treatments (Peppermint and Spearmint only)

**USE INSTRUCTIONS:** This product may be used as a spot treatment or wiper application in spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area. In wiper applications, the applicator should be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds should be a minimum of 6 inches taller than the crop.

**PRECAUTION:** In wiper applications, contact of the herbicide solution with the crop may result in damage or destruction.

**RESTRICTIONS:** Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30-day intervals. In spot treatment applications, no more than 10 percent of the total field area to be harvested should be treated at one time. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for this reason.

### 8.7 Oil Seed Crops

**LABELED CROPS:** Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.

For Roundup Ready canola, see the "ROUNDUP READY CROPS" section of this label.

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus Preharvest (Safflower and Sunflower Only).

**USE INSTRUCTIONS:** This product may be applied before, during or after planting oil seed crops. Broadcast applications must be made prior to emergence of the listed oil seed crops. Wiper applicators or hooded

sprayers may be used between the rows once the crop is established.

Refer to the following table for maximum application rates of this product for use in canola, safflower and sunflower. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Maximum Application Rates**

**Canola**

Combined total for all preemergence and shielded sprayer applications	2 quarts per acre
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**Safflower**

Combined total for all preemergence and shielded sprayer applications	3 quarts per acre
Preharvest application	3 quarts per acre

**Sunflower**

Combined total for all preemergence and shielded sprayer applications	1 quart per acre
Preharvest application	1 quart per acre

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting oil seed crops listed in this section. Observe the maximum application rates for canola, safflower, and sunflower listed at the beginning of this section.

**TANK MIXTURES:** For sunflowers, a tank mixture with Prowl may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

**Selective Equipment**

**USE INSTRUCTIONS:** This product may be applied using a wiper applicator or shielded sprayer in-between rows once the crop is established. See additional instructions on the use of wiper applicators and hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. Observe the maximum application rates for canola, safflower and sunflower listed at the beginning of this section.

**Preharvest (Safflower and Sunflower Only)**

**USE INSTRUCTIONS:** This product provides weed control as a harvest aid when applied to a physiologically mature crop of safflower and sunflower prior to harvest. For safflower, apply a maximum of 3 quarts of this product when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. For sunflower, apply a maximum of 1 quart of this product when the backsides of the sunflower heads are yellow and bracts are turning brown, and seed moisture content is less than 35 per cent.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or livestock feeding. Application must be made at least 30 days prior to planting any crop not listed on this label. Do not feed or graze sunflower forage following application of this product.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied for weed control after harvest of oil seed crops. Higher

rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**RESTRICTIONS:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation. Applications must be made at least 30 days prior to planting any crop not listed on this label.

### 8.8 Soybeans

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Spot Treatment, Preharvest, Selective Equipment.

For Roundup Ready soybeans, see the "ROUNDUP READY CROPS" section of this label.

#### Preplant, Preemergence, At-Planting

**USE INSTRUCTIONS:** This product may be applied alone or in a tank-mixture before, during or after planting soybeans. Applications must be made prior to emergence of the crop.

**TANK MIXTURES:** Apply these tank mixtures in 10 to 20 gallons of water per acre.

- |                           |  |
|---------------------------|--|
| Aim                       | Gauntlet <sup>®</sup>                    |
| Amplify <sup>®</sup>      | Lasso                                    |
| Assure <sup>®</sup> II    | Linex                                    |
| Authority <sup>®</sup>    | Lorox/Linuron                            |
| Boundary <sup>®</sup>     | Lorox Plus <sup>®</sup>                  |
| Canopy <sup>®</sup>       | Micro-Tech                               |
| Canopy XL <sup>®</sup>    | Prowl                                    |
| Command <sup>®</sup>      | Pursuit <sup>®</sup>                     |
| Command Xtra <sup>®</sup> | Pursuit Plus <sup>®</sup>                |
| Domain <sup>®</sup>       | Reflex <sup>®</sup>                      |
| Dual MAGNUM               | Scepter <sup>®</sup>                     |
| Dual II MAGNUM            | Sencor <sup>®</sup> /Lexone <sup>®</sup> |
| Firstrate <sup>®</sup>    | Squadron <sup>®</sup>                    |
| Flexstar <sup>™</sup>     | Steel <sup>®</sup>                       |
| Frontier/Outlook          | Valor <sup>®</sup>                       |
| Fusion <sup>®</sup>       |  |

This product may be tank-mixed with 2,4-D or 2,4-DB. See the 2,4-D label for intervals between application and planting.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

For difficult-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints when weeds are over 6 inches tall.

#### Spot Treatment

**USE INSTRUCTIONS:** For spot treatments, apply this product prior to initial pod set in soybeans.

**RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

#### Preharvest

**USE INSTRUCTIONS:** This product provides weed control when applied prior to harvest of soybeans.

Apply at rates given in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE TABLES". This product may be applied using either aerial or ground spray equipment. Apply after pods have set and lost all green color. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

**PRECAUTIONS:** Preharvest application is not to be used for soybeans grown for seed, as a reduction in germination or vigor may occur.

**RESTRICTIONS:** Do not apply more than 5 quarts per acre of this product for preharvest applications. Do not apply more than 2 quarts per acre of this product by air. Allow a minimum of 7 days between application and harvest of soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. If the application rate is 1 quart per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.

**Selective Equipment**

**USE INSTRUCTIONS:** This product may be applied through recirculating sprayers, shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. Allow at least 7 days between application and harvest.

**RECOMMENDATION:** See the "Selective Equipment" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**Preplant**

It is strongly encouraged that horseweed be controlled prior to planting. Apply a tank mixture of this product (32 fluid ounces per acre) with 2,4-D (0.5 pounds active ingredient per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting.

**Control and Management of Glyphosate-Resistant Amaranthus spp. (Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**Management of Glyphosate-Resistant Amaranthus spp.**

If a naturally occurring glyphosate-resistant biotype of an Amaranthus species is present, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are registered in each state or for all sites or crops for the management of Amaranthus spp. When KULL 41 S is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Preplant, At-Planting, Preemergence to Soybean**

**Preemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix with a preemergence residual herbicide product such as alachlor (INTRRO) or another residual herbicide for control of Amaranthus spp. For preplant application, 2,4-D may be added to the tank-mix to help control emerged broadleaf weeds. Follow label instructions regarding application timing relative to soybean planting.

**Postemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix with lactofen (Cobra) or fomesafen (Flexstar)

to control emerged *Amaranthus* spp.

**Control and Management of Glyphosate-Resistant Common and Giant Ragweed (*Ambrosia* spp.)  
(Not Approved for this Use in California)**

**Management of Glyphosate-Resistant Ragweed Species**

To control a naturally occurring glyphosate-resistant biotype of common or giant ragweed, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are labeled for management of ragweed species in all states or for all sites and crops. When this product is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Preplant, At-Planting, Preemergence to Soybean**

**Preemergence to glyphosate-resistant ragweed species**

Apply this product, to control emerged weeds, in a tank-mix with a preemergence residual herbicide such as cloransulam (FirstRate) where ALS resistance is not an issue. For preplant application, 2,4-D may be added to the tank-mix to help control emerged broadleaf weeds. Follow label directions regarding application timing relative to planting soybean.

**Postemergence to glyphosate-resistant ragweed species**

Apply this product, to control emerged weeds, in a tank-mix with cloransulam (FirstRate), lactofen (Cobra) or fomesafen (Flexstar) to control emerged ragweed species.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of ragweed species. When a tank-mix with a generic active ingredient, such as 2,4-D or atrazine is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**Control and Management of Glyphosate-Resistant Johnsongrass  
(Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in soybean cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Preplant, At-Planting, Preemergence**

Control emerged weeds with a burndown application prior to planting or the emergence of soybean. For burndown, apply this product before, during or after planting soybean, but prior to crop emergence, to control a broad spectrum of emerged weeds. For additional control or suppression of rhizome johnsongrass prior to planting soybean apply this product along with a product containing one of the following ingredients: alachlor, metolachlor, pendimethalin or trifluralin. For suppression of emerged johnsongrass, apply this product in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus( Sethoxydim).

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank.

Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

## 8.9 Sugarcane

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus Spot Treatment, Sugarcane Ripening

### Preplant, Preemergence, At-Planting

**USE INSTRUCTIONS:** This product may be applied in or around sugarcane fields or in fields prior to the emergence of plant cane.

**RESTRICTION:** Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

### Spot Treatment

**USE INSTRUCTIONS:** This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 1 percent solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.

**PRECAUTIONS:** Avoid spray contact with healthy cane plants since severe damage or destruction may result.

**RESTRICTION:** Do not feed or graze treated sugarcane foliage following application.

### Fallow Treatments

**USE INSTRUCTIONS:** This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Ground or aerial application equipment may be used. Applications up to 3 quarts per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site. Ensure that the specific product being used is labeled for these applications in sugarcane. Read and follow label directions of all products in the tank mixtures.

### Hooded Sprayers

**USE INSTRUCTIONS:** This product may be used through hooded sprayers for weed control between the rows of sugarcane. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional use instructions.

**RESTRICTION:** Do not allow treated weeds to come into contact with the crop. Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

**Sugarcane Ripening**

**USE INSTRUCTIONS:** This product is a foliar-applied plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane.

When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane.

As a result of leaf desiccation, improved trash burn can be expected.

Most of the sucrose increase is concentrated in the top nodes of the treated sugarcane stalk. To maximize sugar recovery where topping is practiced at harvest, top at the base of the fourth leaf.

Prior to application, consult your state sugarcane authority or local Ritter Chemical LLC representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated.

**APPLICATION RATES:** Use the following application rates and timing instructions according to the state in which the sugarcane is grown.

**NOTE:** Use the higher rate within the given range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

**FLORIDA-** Apply 7 to 16 fluid ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

**HAWAII-** Apply 12 to 28 fluid ounces of this product per acre 4 to 10 weeks before harvest.

**LOUISIANA-** Apply 5 to 16 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

**PUERTO RICO-** Apply 7 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

**TEXAS-** Apply 7 to 16 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

**PRECAUTIONS:** Application of this product may initiate development of shooting eyes. This product may not increase the sucrose content of sugarcane under conditions of good natural ripening. Within 2 to 3 weeks after application, this product may produce a slight yellowing to a pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death may occur.

Rainfall within 6 hours after application may reduce effectiveness.

Application to sugarcane grown for seed could result in a reduction in germination or vigor. Buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on sugarcane grown for seed.

Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

**RESTRICTIONS:** Do not feed or graze treated sugarcane forage following application. Do not plant subsequent crops in treated fields other than the following for 30 days after application: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybeans, squash (all types) or wheat. Do not apply for enhanced ripening to any crops other than sugarcane.

**8.10 Vegetable Crops**

**NOTE:** THIS "VEGETABLE CROPS" SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS WITHIN SECTION 8.10 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATIONS:** Chemical Fallow, Preplant Fallow Beds, Preplant, Preemergence, Prior to Transplanting Vegetables, At-Planting, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles,

Wiper Applications in Row-Middles, and Post-Harvest, Directed Applications (Nonbearing Ginseng), Over-the-Top Wiper Applications (Rutabagas only).

**PRECAUTIONS:** When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the wash water flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making pre-emergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row middles should be made prior to vine development otherwise severe injury or destruction may result.

**RESTRICTIONS:** Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

**8.10.1 Brassica Vegetables**

**LABELED CROPS:** Broccoli, Chinese broccoli (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

**8.10.2 Bulb Vegetables**

**LABELED CROPS:** Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Welsh Onion, Shallot.

**8.10.3 Cucurbit Vegetables and Fruits**

**LABELED CROPS:** Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

**RESTRICTION:** For Cantaloupe, Casaba melon, Crenshaw melon, Cucumber, Gherkin, Gourds, Honeydew melon, Honey ball melon, Mango melon, Melons (all), Muskmelon, Persian melon, Pumpkin, Squash (summer, winter), and Watermelon, allow at least 3 days between application and planting.

**8.10.4 Leafy Vegetables**

**LABELED CROPS:** Amaranth (Chinese spinach), Arugula (roquette), Beet greens, Cardoon, Celery, Chinese celery, Celtuce, Chaya, Chervil, Edibleleaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

**RESTRICTION:** For Watercress, avoid applications within 3 days prior to seeding and during the period between seeding and emergence to minimize the risk of injury.

**8.10.5 Fruiting Vegetables**

**LABELED CROPS:** Eggplant, Groundcherry (*Physalis* spp.), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

**RESTRICTIONS:** For Eggplant, Ground cherry, Pepper (all), and Tomatillo, allow at least 3 days between application and planting. For Tomato, hooded or shielded sprayer applications in row middles are not to be

used.

### 8.10.6 Legume Vegetables (Succulent or Dried)

**LABELED CROPS:** Bean (*Lupinus*: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus*: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna*: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (*Pisum*: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

#### PREHARVEST AND SPOT –TREATMENTS OF WEEDS IN DRY BEANS, PEAS, LENTILS AND CHICKPEAS

##### Broadcast Spray

**USE INSTRUCTIONS:** This product may be applied as an over-the-top broadcast spray to control labeled weeds prior to the harvest of dry beans, dry peas, lentils, and chickpeas. Apply up to 32 fluid ounces of this product per acre in dry beans, or up to 96 fluid ounces per acre in dry peas, lentils, and chickpeas in 3 to 20 gallons of water per acre at the hard dough stage of legume seed (30 percent grain moisture or less). Either ground broadcast or aerial applications may be made.

**RESTRICTIONS:** Apply at least 7 days before harvest for dry beans and 14 days before harvest for dry peas, lentils, and chickpeas. Only one application per year may be made; do not combine a preharvest spray with a spot treatment on the same crop area. Employ at least a 30 day plant-back interval between treatment and replanting for any crop not listed on this label. Preharvest application is not to be used for dry beans, peas, lentils, or chickpeas grown for seed, as a reduction in germination or vigor may occur. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat cowpeas or field (feed) peas, since these are considered to be grown as livestock feed.

##### Spot Treatments

**USE INSTRUCTIONS:** This product may be applied as a spot treatment to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel), and milkweed in dry beans, dry peas, lentils, and chickpeas. Apply up to 32 fluid ounces of this product per acre in dry beans, or up to 96 fluid ounces per acre in dry peas, lentils, and chickpeas, in 10 to 20 gallons of water through ground spray equipment or use a 2 percent solution in a hand held sprayer. For best results, applications should be made at or beyond the bud stage of growth. The crop receiving spray in treated areas will be killed.

**RESTRICTIONS:** Apply at least 14 days before harvest. Only one application per year may be made; do not combine a preharvest spray with a spot treatment on the same crop area. Employ at least a 30 day plant-back interval between treatment and replanting for any crop not listed on this label. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat cowpeas or field (feed) peas, since these are considered to be grown as livestock feed.

### 8.10.7 Root and Tuber Vegetables

**LABELED CROPS:** Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (turnip-rooted), Parsley (turnip-rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.

##### Directed Applications (Non-bearing Ginseng only)

**USE INSTRUCTIONS:** This product may be used for weed control in established non-bearing ginseng. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high volume wands, lances, and orchard guns or with wiper application equipment.

**PRECAUTIONS:** Direct applications so that there is no contact of this product with the ginseng plant.

**RESTRICTION:** Applications must be made at least one year prior to harvest.

##### Over-the-Top Wiper Applications (Rutabagas only)

**USE INSTRUCTIONS:** Wiper applicators may be used over-the-top of rutabagas.

**RESTRICTION:** Allow at least 14 days between application and harvest of rutabagas.

**8.11 Miscellaneous Crops**

**LABELED CROPS:** Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry; Sugar beet.

**TYPES OF APPLICATIONS:** Those listed in Section 8.0 plus the following: Weed Control, Site Preparation, Spot Treatment (Asparagus).

For Roundup Ready sugar beets, see the "ROUNDUP READY CROPS" section of this label.

**PRECAUTIONS:** Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.

**RESTRICTIONS:** When making preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row middles must be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

**Weed Control, Site Preparation**

**USE INSTRUCTIONS:** This product may be applied for weed control or for site preparation prior to planting or transplanting crops listed in this section.

**PRECAUTIONS:** When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care should be taken to ensure that the wash water flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

**RESTRICTIONS:** Do not apply within a week before the first asparagus spears emerge. Do not feed or graze treated pineapple forage following application.

**Spot Treatment (Asparagus)**

**USE INSTRUCTIONS:** This product may be applied immediately after cutting, but prior to the emergence of new spears.

**RESTRICTIONS:** Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

**Post-Harvest (Asparagus)**

**USE INSTRUCTIONS:** This product may be applied after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.

**PRECAUTIONS:** Direct contact of the spray with the asparagus may result in serious crop injury. Select and use recommended types of spray equipment for postemergence post-harvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

**9.0 TREE, VINE, AND SHRUB CROPS (Alphabetical)**

41/135

NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE, AND SHRUB CROPS WITHIN SECTION 9 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

**TYPES OF APPLICATIONS:** Preplant (Site Preparation) Broadcast Sprays, Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (shielded sprayers, wiper treatments), Directed Sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

Applications may be made with boom equipment, CDA equipment, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

**USE INSTRUCTIONS:** This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries, and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 1 pint to 5 quarts per acre according to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE TABLES" sections of this label. Utilize rates at the higher end of the allowable rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 10.6 quarts per acre per year.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

**PRECAUTIONS:** Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of trees, canes and vines. Avoid applications when recent pruning wounds or other mechanical injury has occurred. Contact of this product with other than matured brown bark can result in serious crop damage or destruction. Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance.

For applications in strips (within rows of trees), only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) should be used to minimize the potential for leakage or drift of herbicide sprays onto crop. For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back. Only wipers or shielded applicators capable of preventing all contact with crop may be used. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional directions and precautions.

**RESTRICTION:** Allow a minimum of 3 days between application and transplanting.

**Middles (Between Rows of Trees, Vines or Bushes)**

**USE INSTRUCTIONS:** This product will control or suppress annual and perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

**TANK MIXTURES:** A tank mixture of this product plus Goal 2XL may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is recommended when weeds are stressed or growing in dense populations. 16 to 32 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control annual weeds with a maximum height or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's-purse, annual sowthistle, filaree (suppression), horseweed/marestail (*Conyza canadensis*), stinging nettle and common purslane (suppression). 16 to 32 fluid ounces per acre of this product plus 3 to 12 fluid ounces per acre of Goal 2XL will control common cheeseweed (malva) or hairy fleabane (*Conyza bonariensis*) with a maximum height or diameter of 3 inches.

**Strips (In Rows of Trees, Vines or Bushes)**

**TANK MIXTURES:** This product may be applied in rows of tree or vine crops in tank mixtures with the following products:

Devrinol<sup>®</sup> 50 DF, Simazine 4L, Direx<sup>®</sup> 4L, Simazine 80W, Goal 2XL, Sim-Trol<sup>®</sup> 4L, Karmex<sup>®</sup> DF, Solicam<sup>®</sup> DF, Krovar I, Surflan<sup>®</sup> AS, Princep Caliber<sup>®</sup> 90, Surflan 75W, Prowl

Do not apply these tank mixtures in Puerto Rico.

Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

**Perennial Grass Suppression**

This product will suppress perennial grasses such as bahiagrass, Bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product per acre. Do not add ammonium sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of Bermudagrass, apply 1 to 2 quarts of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the Bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of Bermudagrass, apply 6 to 16 fluid ounces of this product per acre east of the Rocky Mountains and 16 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when regrowth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 6 to 10 fluid ounces of this product per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**Orchards (Pome Fruit, Stone Fruit and Tree Nuts)**

Apply 2 quarts of this product plus up to 1 pound of 2,4-D per acre at the rosette stage before marestail exceeds 6 inches in height. Apply using a carrier volume of 15 gallons per acre. Ensure that the specific 2,4-D product being used is labeled for use with the crop being grown. A residual herbicide, such as diuron, may provide additional preemergence control. Read and follow label directions for all products used in the tank mixture. Further local restrictions may apply.

**Vine Crops (grapes only)**

Apply 2 quarts of this product plus up to 1 pound of 2,4-D per acre at the rosette stage before marestail exceeds 6 inches in height. Apply using a carrier volume of 15 gallons per acre. Ensure that the specific 2,4-D product being used is labeled for use with the crop being grown. A residual herbicide such as diuron, may provide additional preemergence control. Read and follow label directions for all products used in the tank mixture. Further local restrictions may apply.

**Cut Stump (Tree Crops)**

**USE INSTRUCTIONS:** Cut stump applications of this product may be made during site preparation or site renovation, prior to transplanting tree crops. This product will control regrowth of cut stumps and resprouts of many types of tree species, some of which are listed below.

Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo, Tangor.

Fruit Trees: Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.

Nut Trees: Almond, Beechnut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

**PRECAUTIONS:** DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

**9.1 Berry Crops**

**LABELED CROPS:** Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0 plus Spot Treatment in Cranberry Production and Post-Harvest Treatments in Cranberry Production.

**RESTRICTIONS:** To avoid damage, herbicide sprays must not be allowed to contact desirable vegetation, including green shoots, canes, or foliage. Allow a minimum of 30 days between last application and harvest in cranberries. Allow a minimum of 14 days between last application and harvest in other berry crops. Do not make directed sprays within the cranberry bush areas prior to berry harvest.

**Spot Treatment in Cranberry Production**

**USE INSTRUCTIONS:** Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers, use 1 to 2 percent solution of this product. Spray to wet vegetation, not to run-off.

**RESTRICTIONS:** For treatments after draw-down of water in dry ditches, allow 2 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after draw-down to ensure application to actively growing weeds. Allow a minimum of 30 days between last application and harvest of cranberries. Do not apply this material through the irrigation system. Do not make applications by air. Do not apply directly to water. Use nozzles that emit medium- to large-sized droplets to minimize drift in order to avoid crop injury.

**Post-Harvest Treatments in Cranberry Production**

**USE INSTRUCTIONS:** Application of this product may be made after the harvest of cranberries to control weeds growing within the field. Best results will be obtained if applications are made to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. If using hand-held sprayers, use a 0.5 to 1 percent solution of this product. Spray to wet vegetation, not to run-off. If using hand-



by using shields or coverings made of cardboard or other impermeable material.

**RESTRICTION:** THIS PRODUCT IS NOT TO BE USED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES AND OTHER PINE TREES.

**Site Preparation**

**USE INSTRUCTIONS:** This product may be used prior to planting nonfood tree crops.

**PRECAUTION:** Precautions should be taken to protect nontarget plants during site preparation applications.

**9.5 Pome Fruit**

**LABELED CROPS:** Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0.

**RESTRICTION:** Allow a minimum of 1 day between last application and harvest in pome crops.

**9.6 Stone Fruit**

**LABELED CROPS:** Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0.

**RESTRICTIONS:** Allow a minimum of 17 days between last application and harvest in stone fruit crops. For olive groves, apply as directed sprays only.

**Restrictions on Application Equipment**

For cherries, any application equipment listed in this section may be used in all states.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states, use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for 2 or more years.

**EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.**

**9.7 Tree Nuts**

**LABELED CROPS:** Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English)

**TYPES OF APPLICATIONS:** Those listed in Section 9.0.

**RESTRICTIONS:** Allow a minimum of 3 days between last application and harvest of tree nuts, except coconut. Allow 14 days between application and harvest in coconut.

**9.8 Tropical and Subtropical Trees and Fruits**

**LABELED CROPS:** Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilima, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0 plus Bananacide (Banana only).

**RESTRICTIONS:** Allow a minimum of 1 day between last application and harvest in banana, guava, papaya,

and plantain crops. Allow a minimum of 14 days between last application and harvest for any other tropical or subtropical tree fruit. Allow a minimum of 28 days between last application and harvest in coffee crops. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

**Bananacide (Banana only)**

**USE INSTRUCTIONS:** This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus as well as non-infected banana plants to establish disease free buffers around plantations.

Remove all fruit from the plants within the treatment area prior to treatment. Inject 0.04 fluid ounce (1 mL) of this product's concentrate per 2 to 3 inches of pseudostem diameter. Make the injection at least one foot above the ground, except for very small plants, which should be injected vertically into the top. Any subsequent regrowth must also be destroyed. All plants and mats (or units) adjacent (within a 4-foot radius) to a treated mat shall be mechanically destroyed.

For control of the Banana Bunchy Top Virus, it is critical that the grower follow a strict control program involving monitoring for diseased plants, spraying to control the aphid vector, and destruction of all infected mats (or units). An infected plant may not show symptoms of the banana bunchy top virus for up to 125 days, therefore it is critical that the entire mat (or unit) containing the diseased plant be destroyed immediately.

**RESTRICTIONS:** Do not apply more than 0.5 fluid ounce (15 mL) of this product's concentrate per mat (or unit). Remove all fruit from plants and mats (or units) prior to treatment. Do not harvest any fruit or plant materials from treated mats (or units) following injection. Do not allow livestock to consume treated plant materials. Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for weed control.

**9.9 Vine Crops**

**LABELED CROPS:** Grapes (raisin, table, wine), Hops, Kiwi, Passion fruit.

**TYPES OF APPLICATIONS:** Those listed in Section 9.0.

**USE INSTRUCTIONS:** Applications should not be made when green shoots, canes or foliage are in the spray zone.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.

**RESTRICTIONS:** Allow a minimum of 14 days between last application and harvest in vine crops. Do not use selective equipment in kiwi.

**10.0 PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS**

**USE INSTRUCTIONS:** This product may be applied to turf or pasture grasses, forage legumes, and rangelands for weed control as directed below. Apply 12 fluid ounces to 5 quarts per acre according to the "ANNUAL WEEDS", "PERENNIAL WEEDS", and "WOODY BRUSH AND TREES RATE TABLES" in the product label booklet.

**RECOMMENDATION:** Follow the specific limitations below with regard to application methods, timing, treatment rates, and post-application intervals.

**RESTRICTION:** All applications must be made at least 30 days before planting any crop that is not specified for treatment in this label booklet or supplemental labeling.

**10.1 Alfalfa, Clover, and Other Forage Legumes**

**LABELED CROPS:** Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types).

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Spot Treatment, Wiper Applications Over-the-Top, Renovation, Preharvest (except Kenaf and Leucaena), Dormant Alfalfa.

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting crops listed in this

section. Applications must be made prior to emergence of the crop.

**RESTRICTIONS:** Remove domestic livestock before application. The crop may be fed or grazed as soon as it reaches sufficient maturity.

**Preharvest (except Kenaf and Leucaena)**

**USE INSTRUCTIONS:** This product may be used in declining stands or any stand where severe crop injury or destruction is acceptable. This product will control annual and perennial weeds, including quackgrass, when applied prior to crop harvest. Applications may be made at any time of the year. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.

**RESTRICTIONS:** Make only one application to an existing crop stand per year. The treated crop and weeds can be harvested and fed to livestock according to the intervals below.

	Maximum Single Application Rate	Minimum Interval between application and harvest/grazing
Alfalfa	2 quarts per acre	36 hours
All other labeled legumes above	3 pints per acre	3 days

This application may destroy an alfalfa stand and may severely injure or destroy other labeled crops such as clover. Preharvest application is not to be used for alfalfa grown seed, as a reduction in germination or vigor may occur.

**Spot Treatment or Wiper Applications Over-the-Top**

**USE INSTRUCTIONS:** This product may be applied as a spot treatment or with wiper applicators. For wipers, see the "Wiper Applicators" in the "Selective Equipment" section of the product label booklet. Applications may be made in the same area at 30-day intervals.

**PRECAUTIONS:** For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. No more than 10 percent of the total field area should be treated at one time.

**RESTRICTION:** Remove domestic livestock before application and wait 3 days after application before grazing livestock or harvesting.

**Renovation**

**USE INSTRUCTIONS:** This product may be applied as a broadcast spray to renovate existing stands of alfalfa, clover, and other labeled forage legumes. If the crop is to be grazed or harvested for feed, use up to 2 quarts per acre in alfalfa and up to 3 pints per acre in other labeled legumes. For complete removal of established stands of clover, it may be necessary to use the higher treatment rates listed in the "PERENNIAL WEEDS RATE TABLE" in the label booklet.

**RESTRICTIONS:** When treatment rates of 2 quarts per acre for alfalfa or 3 pints per acre for other forage legumes are used, remove domestic livestock before application and wait 3 days after application before reintroduction. If treatment rates above these levels are necessary, do not graze or harvest treated foliage for livestock feed. Crops listed for treatment in the label booklet may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

**Dormant Alfalfa**

This product will control or suppress many weeds, including quackgrass, downy brome and cheatgrass in dormant alfalfa.

Apply 8 to 12 fluid ounces of this product per acre. Apply in the spring to alfalfa that is dormant. Apply after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliolate leaf expansion of alfalfa. Application made after expansion of the first trifoliolate leaf of the alfalfa will cause growth reduction and reduced crop yield.

Do not use ammonium sulfate when spraying dormant alfalfa with KULL 41 S.

Do not use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated.

Do not make more than one application per year.

Allow 36 hours after application before grazing livestock or harvesting.

Slight discoloration of the alfalfa may occur, but the alfalfa will re-green and re-grow under moist soil conditions as effects of this product wear off.

Application of this product is limited to persons who have attended an approved training program. Application of this product can cause crop injury. Any crop injury is the sole responsibility of the applicator.

### 10.2 Conservation Reserve Program (CRP)

**TYPES OF APPLICATIONS:** Renovation (Rotating out of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Wiper Applications Over-the-Top.

#### Renovation (Rotating out of CRP), Site Preparation

**USE INSTRUCTIONS:** This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation recommendations. For any crop not listed for treatment in this product's label booklet, applications must be made at least 30 days prior to planting.

#### Postemergence Weed Control in Dormant CRP Grasses, Wiper Applications Over-the-Top

**USE INSTRUCTIONS:** This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of this product per acre in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

**PRECAUTIONS:** Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed.

**RESTRICTION:** Do not apply more than 3 quarts per acre per year onto CRP grasses.

### 10.3 Grass Seed or Sod Production

**LABELED CROPS:** Any grass (*Gramineae* family) except Corn, Sorghum, Sugarcane and those listed in this product's label booklet under "Cereal and Grain Crops".

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Renovation, Site Preparation, Shielded Sprayers, Wiper Applications Over-the-Top, Spot Treatments, Creating Rows in Annual Ryegrass.

#### Preplant, Preemergence, At-Planting, Renovation, Site Preparation

**USE INSTRUCTIONS:** This product controls most existing vegetation prior to renovating turf or forage grass seed areas or establishing turf grass grown for sod. Make applications before, during or after planting, or for renovation. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

**RESTRICTIONS:** Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts. If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed for treatment in this product's label booklet, applications must be made at

least 30 days prior to planting. Applications must be made prior to the emergence of the crop to avoid crop injury.

**Shielded Sprayers**

**USE INSTRUCTIONS:** Apply 1 to 3 quarts of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields. For additional instructions, see "Shielded Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this product's label booklet.

**PRECAUTION:** Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

**Wiper Applications Over-the-Top**

**USE INSTRUCTIONS:** Applicators should be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary.

For additional instructions, see "Wiper Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this product's label booklet.

**PRECAUTION:** Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

**Spot Treatments**

**USE INSTRUCTIONS:** Use a 1.0-to 2.0 percent solution.

**RESTRICTIONS:** Apply this product prior to heading of grasses grown for seed. The crop receiving the spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.

**RECOMMENDATION:** Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

**Creating Rows in Annual Ryegrass**

**USE INSTRUCTIONS:** Use 1 to 2 pints of this product per acre. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height.

**RECOMMENDATIONS:** Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use of low pressure nozzles, or drop nozzles designed to target the application over a narrow band are recommended.

**To the extent consistent with applicable law, grower assumes all responsibility for crop losses from misapplication.**

**10.4 Pastures**

**LABELLED CROPS:** Any grass (*Gramineae* family) except Corn, Sorghum, Sugarcane and those listed in this product's label booklet under "Cereal and Grain Crops". Grasses that may be treated include Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

**TYPES OF APPLICATIONS:** Preplant, Preemergence, Spot Treatment, Wiper Applications, Over-the-Top, Pasture Renovation, Postemergent Weed Control (Broadcast Treatments).

**Preplant, Preemergence, Pasture Renovation**

**USE INSTRUCTIONS:** This product may be applied prior to planting or emergence of forage grasses. In addition, this product may be used to control perennial pasture species listed on this label prior to replanting.

**RESTRICTIONS:** If application rates total 3 quarts per acre or less, no waiting period between treatment and

feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed for treatment in the label booklet may be planted into the treated area at any time; for other crops, wait 30 days between application and planting.

**Spot Treatment, Wiper Applications Over-the-Top**

**USE INSTRUCTIONS:** This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.

**RESTRICTIONS:** For spot treatments or wiper application methods using rates of 3 quarts per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 3 quarts per acre, no more than 10 percent of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

**Postemergent Weed Control (Broadcast Treatments)**

**USE INSTRUCTIONS:** This product may be used to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

**RESTRICTIONS:** Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Use of higher application rates will cause stand reductions. Do not apply more than 3 quarts per acre per year onto pasture grasses except for renovation uses (see instructions above). If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any crop not listed for treatment in this product's label booklet.

**Control of Annual Weeds in Coastal Bermudagrass Pastures Prior To Spring Growth or Immediately After First Cutting**

This product may be applied at 16 fluid ounces per acre to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal bermudagrass pastures.

Annual bluegrass	Johnsongrass, seedling	Sandbur, field
Cheat	Little barley	Sunflower
Crabgrass	Oats	Wheat
Henbit	Ryegrass, Italian	Wild mustard

**Timing of Application**

Application prior to spring growth: Apply this product in either late winter or early spring, but before new coastal bermudagrass growth begins in the spring. Application to new growth can damage the bermudagrass.

Remove domestic livestock from the pasture before making the application. Wait 60 days after making this application before grazing or harvesting the treated area.

Application following the first cutting: Apply this product after the first bermudagrass cutting when the bermudagrass has not yet begun to re-grow. Application made after re-growth has begun can damage the bermudagrass.

Remove domestic livestock from the pasture before making the application. Wait 28 days after making this application before grazing or harvesting the treated area.

**NOTE:** ONLY ONE APPLICATION PER YEAR MAY BE MADE TO ANY ONE FIELD. A SPRING APPLICATION PRIOR TO GROWTH AND AN APPLICATION FOLLOWING THE FIRST CUTTING MAY NOT BE MADE ON THE FIELD DURING THE SAME YEAR.

**Selective Weed Control on KULL 41 S-Tolerant Pure Gold® Tall Fescue and Aurora Gold® Fine Fescue Selections**

**(Not Approved for this Use in California)**

Use this product on KULL 41 S-tolerant tall and fine fescue grown for seed production only.

This product may be applied at rates of 4 to 16 fluid ounces per acre as a postemergence spray on KULL 41 S-tolerant tall fescue selections. See this label booklet for application instructions, rates, weeds controlled and appropriate growth stage of weeds.

When applied postemergence, this product will control or suppress the following weeds: annual bluegrass, mustards, downy brome, cheatgrass, chickweed, pennycress, fleabane, shepherd's-purse, sowthistle, wild oat, dandelion, quackgrass, and Canada thistle. See this label booklet for a complete list of weeds controlled or suppressed.

The application rate for this use will limit the level of control of certain species of weeds.

Some crop discoloration and yellowing may occur at higher rates of application with KULL 41 S-tolerant tall and fine fescue selections. Reduction in stand of these selections may occur under stress conditions.

**Timing of Application**

Application can be made 6 weeks after germination and to established crops after growth resumes in the fall onset of dormancy, and in the spring after dormancy break until 60 days prior to harvest.

Avoid spraying during or within two weeks after periods when air temperatures fall below 25°F.

Remove domestic livestock from the seed production field prior to application. Wait 60 days after making this application before grazing or harvesting the treated area.

**NOTE:** Only two applications per crop growth cycle may be made to any one site. If two applications are required, only one fall and one spring application may be made during one 12 month cycle.

**10.5 Rangelands**

**TYPES OF APPLICATIONS:** Postemergence.

This product will control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

**USE INSTRUCTIONS:** Apply 12 to 16 fluid ounces of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are possible, and recommended, where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 16 fluid ounces of this product per acre at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Controlled burning may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

**PRECAUTIONS:** Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

**RESTRICTIONS:** Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding of livestock grazing is required. Do not apply more than 3 quarts per acre per year.

**11.0 ROUNDUP READY® CROPS**

The following instructions or those separately published on Ritter Chemical LLC Supplemental labeling include all applications which can be made onto the specified Roundup Ready crops during the complete

cropping season. Do NOT combine these instructions with other directions made for crop varieties that do not contain the Roundup Ready gene, in the "ANNUAL AND PERENNIAL CROPS (Alphabetical)" section of this label.

THIS PRODUCT MAY BE USED FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE.

The Roundup Ready® is the registered trademark of Monsanto Company. The Roundup Ready designation indicates that the crop variety contains a patented gene that provides tolerance to this product. Information on Roundup Ready crop varieties may be obtained from your seed supplier or Monsanto Co. representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

**NOTE: Roundup Ready® seed, and the method of selectively controlling weeds using glyphosate on a Roundup Ready® crop, are protected under several U.S. Patents, including 5,352,605 and 5,633,435. A license to use Roundup Ready® seed must be obtained prior to use.** Monsanto retains ownership of the gene and process technologies, and the Purchaser of the seed receives the right to use the licensed genes and technologies subject to the limited use license conditions. Seed containing the Roundup Ready trait cannot be used for research and demonstration, reverse engineering or in connection with herbicide registration. Progeny seed containing the Roundup Ready trait cannot be saved for replanting or transferred to others for replanting. Contact your Authorized Monsanto Co. Retailer for information on obtaining a limited use license.

**For ground applications** with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment use flat spray nozzles. Check for even distribution of spray droplets.

**For aerial applications** apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

For proper stewardship of aerial applications over-the-top of Roundup Ready crops, Ritter Chemical LLC recommends that growers and applicators read and follow all precautions and procedures contained in the use guide "A Guide to On-Target Aerial Application" available by calling 1-800ROUNDUP (1-800-768-6387).

**ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY GENE.**

See the "MIXING" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for additional directions and restrictions on the application of this product.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers may result in reduced weed control or crop injury and are NOT to be used for over-the-top applications of this product unless otherwise noted in this product label, supplemental labeling or fact sheets published separately by Ritter Chemical LLC.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to the "MIXING" section for use instructions for ammonium sulfate.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product. Follow the cleaning procedures specified on the label of the product(s) previously used. **THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.**

**NOTE:** The following recommendations are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of this product is recommended to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcucumber, and giant ragweed with multiple germination times or suppressed (stunted) weeds may require a second application of

this product for complete control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

### 11.1 Corn with the Roundup Ready Gene

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Postemergence (In-Crop), Spot Treatment, Preharvest, Post-Harvest.

<u>Maximum Allowable Combined Application Quantities Per Season</u>	
Combined total per year for all applications	8 quarts per acre
Total Preplant, Preemergence, At-planting applications	5 quarts per acre
Total in-crop applications from emergence through the V8 stage or 30 inches	2 quarts per acre
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest	1 quart per acre

#### Preplant, Preemergence, At-Planting

**USE INSTRUCTIONS:** This product may be applied alone or in a tank-mixture before, during or after planting corn.

**TANK MIXTURES:** This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso or Micro-Tech at 50 to 100 percent of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines—the more restrictive requirements apply.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

**NOTE:** For maximum weed control, a postemergence (in-crop) application of this product should be applied following the use of less than labeled rates of the preemergence residual products listed above.

#### Postemergence (In-Crop)

**USE INSTRUCTIONS:** This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first.

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. The postemergent application of 24 to 32 fluid ounces per acre of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4 inch tall weeds or less.

This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 24 to 32 fluid ounces per acre will control the labeled grasses and broadleaf weeds.

**TANK MIXTURES:** This product may be applied in tank mixture with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, and Micro-Tech at 50 to 100 percent of labeled rate. This product may be

applied in tank mixture with Permit<sup>®</sup> and atrazine at labeled rates. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines; the more restrictive requirements apply.

Tank-Mix Partner	Maximum Height of Corn For Application
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5.6 L	11 inches
Bullet* Micro-Tech*	5 inches
Permit	30 inches
atrazine	12 inches

\*Bullet and Micro-Tech are not registered for use as a postemergence application in Texas.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

**PRECAUTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**RESTRICTIONS:** Single in-crop applications of this product are not to exceed 1 quart per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 2 quarts per acre per growing season. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of corn forage.

**Preharvest**

**USE INSTRUCTIONS:** In Roundup Ready corn, up to 1 quart per acre of this product can be applied preharvest. Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).

**RESTRICTION:** Allow a minimum of 7 days between application and harvest.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**RESTRICTION:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

**11.2 Cotton with the Roundup Ready Gene**

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Postemergence (Over-the-Top), Selective Equipment, Preharvest.

<u>Maximum Allowable Combined Application Quantities Per Season</u>	
Combined total per year for all applications	8 quarts per acre
Preplant, Preemergence, At-planting applications	5 quarts per acre
Total in-crop applications from	4 quarts per acre

ground cracking to layby Maximum preharvest application rate	2 quarts per acre
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**PRECAUTION:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**RESTRICTIONS:** The combined total application of this product from cotton emergence until harvest must not exceed 6 quarts per acre. NO MORE THAN TWO OVER-THE-TOP BROADCAST APPLICATIONS MAY BE MADE FROM CROP EMERGENCE THROUGH THE 4-LEAF (NODE) STAGE OF DEVELOPMENT. NO MORE THAN TWO APPLICATIONS MAY BE MADE FROM THE 5-LEAF STAGE THROUGH LAYBY. SEQUENTIAL IN-CROP OVER-THE-TOP OR POST-DIRECTED APPLICATIONS OF THIS PRODUCT MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST TWO NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS. ALLOW A MINIMUM OF 7 DAYS BETWEEN APPLICATION AND HARVEST.

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting cotton.

**Postemergence Over-the-Top**

**USE INSTRUCTIONS:** This product may be applied by aerial or ground application equipment at rates up to 1 quart per acre per application postemergence to Roundup Ready cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the 4leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.

**Salvage Treatment.** This treatment may be used after the 4-leaf stage of development and should only be used where weeds threaten to cause the loss of the crop. One quart per acre may be applied either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeds.

**NOTE:** SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.

**NOTE:** For specific rates of application and instructions, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE TABLES" in this booklet.

**PRECAUTION:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**Selective Equipment**

**USE INSTRUCTIONS:** This product may be applied using precision postdirected or hooded sprayers at rates up to 1 quart per acre per application to Roundup Ready cotton through layby. At this stage, post-directed equipment should be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves should be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 psi). For best results, make applications while weeds are small (less than 3 inches).

**PRECAUTION:** See the "Selective Equipment" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

**Preharvest**

**USE INSTRUCTIONS:** This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20 percent boll crack. Up to 2 quarts of this product may be applied using either aerial or ground spray equipment.

**TANK MIXTURES:** This product may be tank-mixed with DEF 6, Folex, Ginstar, or Prep. **NOTE:** This product will not enhance the performance of these harvest aids when applied to Roundup Ready cotton.

**RESTRICTIONS:** Allow a minimum of 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES, OTHER THAN THOSE LISTED ON THIS LABEL, FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

**ATTENTION:** USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON, HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**Post-directed**

Management of early season weed competition and the development of a crop height differential between cotton and horseweed are often achieved by a combination of preplant burndown and postemergence over-the-top and/or directed applications of this product. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. Make in-crop, post-directed applications of MSMA (2 pounds active ingredient per acre) tank-mixed with diuron (0.5 to 0.75 pound active ingredient per acre) when the temperature is 80°F or higher.

**Control and Management of Glyphosate-Resistant Amaranthus spp. (Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**Management of Glyphosate-Resistant Amaranthus spp.**

If a naturally occurring glyphosate-resistant biotype of an Amaranthus species is present, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are registered in each state or for all sites or crops for the management of Amaranthus spp. When KULL 41 S is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Postemergence (In-crop) in Roundup Ready Cotton**

**Preemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix with metolachlor prior to the 4-leaf stage in cotton for the control of Amaranthus spp.

**Preemergence to glyphosate-resistant Amaranthus spp. at layby**

Apply KULL 41 S to control emerged weeds, in a tank-mix with a residual herbicide product such as diuron (Direx) or flumioxazin (Valor) post-directed to control Amaranthus spp.

**Postemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix of MSMA and diuron (Direx) or flumioxazin (Valor), to control emerged Amaranthus spp.

**Control and Management of Glyphosate-Resistant Johnsongrass  
(Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in cotton cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Postemergence**

Apply this product to control emerged weeds, and in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim) for the suppression of emerged johnsongrass.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**11.3 Soybeans with the Roundup Ready Gene**

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Postemergence (In-Crop), Preharvest, Post-Harvest.

<b><u>Maximum Allowable Combined Application Quantities Per Season</u></b>	
Combined total per year for all applications	8 quarts per acre
Preplant, Preemergence, At-planting applications	5 quarts per acre
Total in-crop applications from cracking throughout flowering	3 quarts per acre
Maximum preharvest application rate	1 quart per acre

**PRECAUTION:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting soybeans.

**Postemergence (In-Crop)**

**USE INSTRUCTIONS:** When applied as directed, this product will control labeled annual grasses and

broadleaf weeds in Roundup Ready soybeans. Applications of this product can be made in Roundup Ready soybeans from emergence (cracking) throughout flowering. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for the labeled rates for specific annual weeds. In general, an initial application of 1 quart per acre on 2- to 8- inch tall weeds is recommended. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 2 quarts per acre in any single in-crop application for control of annual weeds and where heavy weed densities exist.

A 1- to 2-quarts per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: Bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horse-nettle, marestalk (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product may be necessary to control late flushes of weeds. **IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP.** To control giant ragweed, it is recommended that 1 quart per acre of this product be applied when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

**NOTE:** The use of this product for in-crop applications over Roundup Ready soybeans is not registered in California.

**RESTRICTIONS:** The combined total application from crop emergence through harvest must not exceed 3 quarts per acre. The maximum rate for any single in-crop application is 2 quarts per acre. The maximum combined total of this product that can be applied during flowering is 2 quarts per acre.

**Preharvest**

**USE INSTRUCTIONS:** This product provides weed control when applied prior to harvest of soybeans. Up to 1 quart per acre of this product can be applied by aerial or ground application.

**PRECAUTIONS:** Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

**RESTRICTION:** Allow a minimum of 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied after harvest of Roundup Ready soybeans. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

**Control and Management of Glyphosate-Resistant Horseweed (Marestalk, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**In-Crop**

This treatment can be used as a salvage treatment for a horseweed infestation that was not controlled prior to planting and before horseweed exceeds 6 inches in height. Apply a tank mixture of this product (32 fluid ounces per acre) with FirstRate (0.3 ounces per acre) between full emergence of the first trifoliate leaf and 50% flowering stage of soybean.

**Control and Management of Glyphosate-Resistant Johnsongrass (Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in soybean cropping systems by using this product along with an herbicide with a different mode of action labeled for

preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Postemergence**

Apply this product to control emerged weeds and in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim) for the suppression of emerged johnsongrass.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**11.4 Roundup Ready 2 Yield Soybean**

**TYPES OF APPLICATIONS:** Preplant, At-Planting, Preemergence, Postemergence (In-crop), Preharvest, Post-Harvest

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product with Roundup Ready 2 Yield soybean.

Maximum Application Rates	
Combined total per year for all applications	8 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	5 quarts per acre
Total of all in-crop applications from cracking through flowering (R2 stage soybean)	3 quarts per acre
Maximum preharvest application rate	1 quart per acre

**PRECAUTION:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops.

**RESTRICTION:** The maximum combined total quantity of this product for all applications in a season is 8 quarts per acre. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied before, during, or after planting Roundup Ready 2 Yield soybean.

**TANK MIXTURES:** This product may be tank-mixed with 2,4-D, Banvel or Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used is labeled for application prior to planting or the emergence of soybean. Read and follow label directions of all products in the tank mixture.

[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting and/or preemergence to soybean:

alachlor, atrazine, carfentrazone-ethyl, chlorimuron ethyl, clethodim, clomazone, cloransulam-methyl, dimethenamid-p, fenoxaprop, fluazifop-p-butyl, flufenacet, flumetsulam, flumiclorac pentyl ester, flumioxazin, fomesafen, imazaquin, imazethapyr, lactofen, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, sulfentrazone, tribenuron methyl, trifluralin, quizalofop P-ethyl

Aim, Assure II, Axiom, Authority, Blanket, Boundary, Canopy, Canopy EX, Classic, Cobra, Command, Command Xtra, Domain, Dual MAGNUM, Dual II MAGNUM, FirstRate, Flexstar, Frontier, Fusion, Gangster, Gauntlet, INTRRO, Lexone, Linex, Linuron, Lorox, Lorox Plus, Me-Too-Lachlor, Micro-Tech, Outlook, Pendimax, Prowl, Prowl H2O, Pursuit, Pursuit Plus, Python, Reflex, Resource, Scepter, Select, Select MAX, Sencor, Spartan, Squadron, Steel, Treflan, Valor]

**PRECAUTION:** Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**RESTRICTION:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 5 quarts per acre per season.

#### Postemergence (In-crop)

**USE INSTRUCTIONS:** This product may be used to control annual grasses and broadleaf weeds in Roundup Ready 2 Yield soybean. This product can be applied from emergence (cracking) through flowering (R2 stage soybean). R2 stage soybean ends when a pod 5 millimeters (3/16 inch) long appears at one of the four uppermost nodes on the main stem with a fully developed leaf (R3 stage). Refer to the "ANNUAL WEEDS RATE SECTION" of this label for application rates for specific annual weeds. An initial application rate of 1 quart per acre can be used to control or suppress most 2 to 8 inch tall weeds. Weeds will be 2 to 8 inches tall approximately 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 2 quarts per acre in any single, in-crop application for control of annual weeds and where dense weed populations exist.

A 1 to 2-quarts per acre rate (single or multiple applications) of this product will control or suppress perennial weeds, including Bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, maretail (horseweed), nutsedge, quackgrass, rhizome, johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions, including drought, hail, wind damage or a poor soybean stand, that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. **IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY 2 YIELD SOYBEAN CROP.** To control giant ragweed, apply 1 quart of this product per acre when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

**TANK MIXTURES:** This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready 2 Yield soybean. Ensure that the specific product being used is labeled for application postemergence (in-crop) to soybean. Read and follow label directions of all products in the tank mixture.

[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to soybean:

acifluorfen bentazon, chlorimuron ethyl, clethodim, cloransulam-methyl, fenoxaprop, fluazifop-p-butyl, flumiclorac pentyl ester, fomesafen, imazamox, imazethapyr, lactofen, pendimethalin, quizalofop P-ethyl, sethoxydem, thifensulfuron-methyl

Arrow, Assure II, Basagran, Classic, Cobra, Extreme, FirstRate, Flexstar, Fusilade DX, Fusion, Harmony GT XP, Poast, Poast Plus, Pursuit, Pursuit Plus, Raptor, Reflex, Select, Select MAX, Synchrony STS, Targa, Ultra Blazer]

**PRECAUTION:** Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture. In some cases, these tank-mix products will cause visual soybean injury.

61 / 135

**RESTRICTIONS:** The combined total application of this product from crop emergence through harvest must not exceed 3 quarts per acre. The maximum rate for any single, in-crop application is 2 quarts per acre. The maximum combined total of this product that can be applied during flowering (R2 stage soybean) is 2 quarts per acre.

**Preharvest**

**USE INSTRUCTIONS:** This product may be applied to Roundup Ready 2 Yield soybean for weed control prior to harvest. Apply up to 1 quart of this product per acre after pods have set and lost all green color.

**PRECAUTION:** Take care to avoid excessive seed shatter loss due to ground application equipment.

**RESTRICTION:** Allow a minimum of 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.

**Post-Harvest**

**USE INSTRUCTIONS:** This product may be applied for weed control after harvest of Roundup Ready 2 Yield soybean. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the specific product being used is labeled for weed control application after harvest of soybean. Read and follow label directions of all products in the tank mixture.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**In-Crop**

This treatment can be used as a salvage treatment for a horseweed infestation that was not controlled prior to planting and before horseweed exceeds 6 inches in height. Apply a tank mixture of this product (32 fluid ounces per acre) with FirstRate (0.3 ounces per acre) between full emergence of the first trifoliate leaf and 50% flowering stage of soybean.

**Control and Management of Glyphosate-Resistant Johnsongrass (Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in soybean cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Postemergence (in-crop)**

Apply this product to control emerged weeds and in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim) for the suppression of emerged johnsongrass.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**11.5 Canola with the RoundUp Ready® Gene**

See PRODUCT INFORMATION and MIXING sections of this label for essential product performance information.

**PRODUCT INFORMATION**

USE ONLY ON CANOLA WHICH CONTAINS THE ROUNDUP READY GENE. DO NOT USE THIS PRODUCT ON CANOLA WITH THE ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA.

Applying this product to canola which is not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene since severe injury or destruction will result.

The Roundup Ready designation indicates the canola contains a patented gene which provides tolerance to this herbicide. Information on Roundup Ready canola may be obtained from your seed supplier.

**USE INSTRUCTIONS**

This product will control many troublesome emerged weeds when applied preplant, preemergent and/or with over-the-top applications in Roundup Ready canola. Allow a minimum of 60 days between last application and canola harvest.

<b>Maximum Allowable Combined Yearly Rates</b>	
Preplant and preemergence applications	2 quarts/acre
Total in-crop application from emergence to 6 leaf	1 quart/acre

For ground applications with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment use flat fan nozzles. Check for even distribution of spray droplets.

For aerial applications apply this product in 3 to 15 gallons of water per acre.

**AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY GENE. DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITIONS WHICH FAVOR DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. **AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.**

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

**There are no rotational crop restrictions following applications of this product.**

**Sprayer Preparation**

It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready canola. Follow the cleaning procedures specified on the label of the product(s) previously used. Canola can be very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

**Preplant or Preemergent Applications**

This product may be applied by aerial or ground application equipment prior to planting or emergence of canola. The maximum combined application rate from all preplant and pre-emergent applications should not exceed 2 quarts per acre per season.

**NOTE:** In no-till and stale seedbed systems, always use a burndown treatment to control existing weeds before canola emerges. Apply a preplant burndown treatment of 16 to 32 fluid ounces per acre of this product.

**Over-the-top Applications**

This product may be applied by aerial or ground application equipment postemergence to Roundup Ready canola from emergence through the six leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

**Single Application:** Apply 16 to 24 ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications which may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 16 ounces per acre are applied after the 4-leaf stage.

**Sequential Applications:** Apply 16 ounces per acre to 1 to 3 leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are recommended for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass.

This product will control or suppress, most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application should not exceed 32 ounces per acre.

**WEED CONTROL INSTRUCTIONS**

For specific rates of application and instructions for control of various annual and perennial weeds, refer to the **WEEDS CONTROLLED** section of this label booklet.

Tank mixtures with other herbicides, insecticides, or fungicides may result in reduced weed control or crop injury and are not to be used for over-the-top applications of this product.

Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

**11.6 Flex Cotton with Round Up Ready® Gene**

It is a violation of Federal law to use this product in any manner that is inconsistent with its labeling. This label must be in the possession of the user at the time of application.

**AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.**

See **PRODUCT INFORMATION** and **MIXING, ADDITIVES,** and **APPLICATION INSTRUCTIONS** sections of this label for essential product performance information.

**SPECIALLY FORMULATED FOR EXPANDED ROUNDUP READY FLEX COTTON USES.**

**ATTENTION:** USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON. HOWEVER, DUE TO THE

SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

The use of the over-the-top applications described in this section on other than Roundup Ready Flex cotton will cause crop injury and reduced yields. Drift of this product from applications made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive injury including boll loss, delayed maturity and/or yield loss.

**NOTE:** The instructions provided in this section are specific to, and should only be used with varieties designated as Roundup Ready Flex cotton. DO NOT combine the instructions in this section with those in the ROUNDUP READY COTTON section of this label.

**TYPES OF APPLICATIONS:** Preplant, At-Planting, Preemergence, Postemergence, Preharvest

<b>Maximum Allowable Combined Application Quantities Per Season</b>	
Combined total per year for all applications	8 quarts per acre
Calculate the combined rate to be used for all preplant, in-crop and preharvest applications, to ensure that the total does not exceed the maximum allowed rate per acre per year shown above.	
Preplant, At-planting, Pre-emergence applications	5 quarts per acre
Total in-crop applications from ground cracking to 60 percent open bolls	6 quarts per acre
Maximum allowed from 60 percent bolls open to 7 days prior to harvest	2 quarts per acre

**PRECAUTION:** See the ROUNDUP READY CROPS section of the (product brand name) label booklet for precautionary instructions for use in Roundup Ready crops.

**Preplant, Preemergence, At-Planting**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready Flex cotton.

**Postemergence**

**USE INSTRUCTIONS:** When applied in accordance with the label, (product brand name) will control labeled annual grasses and broadleaf weeds in Roundup Ready Flex cotton. To maximize yield potential, spray cotton early to eliminate competing weeds. Many perennial weeds will be controlled or suppressed with one or more applications of this product. In general, an initial application of 1 quart per acre on 1 to 3 inch tall annual grass and broadleaf weeds is directed. This product may be applied by ground application equipment at rates up to 1.5 quarts per acre per application postemergence to Roundup Ready Flex cotton. In addition to broadcast applications, post-directed equipment may be used to achieve weed coverage.

**NOTE:** For specific rates of application and instruction, refer to the ANNUAL and PERENNIAL WEEDS RATE TABLES on this label.

**RESTRICTIONS:** The maximum rate for any single in-crop application of this product is 1.5 quarts per acre made using ground application equipment. In-crop application rates above 32 fluid ounces per acre made alone or with the addition of other crop chemical products containing surfactant may cause a crop response including leaf speckling or leaf necrosis. Do not exceed a maximum rate of 1 quart per acre of this product when making applications by air. Between layby and 60 percent open bolls, the maximum combined total rate of this product that may be applied is 2 quarts per acre. The maximum combined total of all applications made from crop emergence to 60 percent open bolls must not exceed 6 quarts per acre.

**Pre-harvest**

**USE INSTRUCTIONS:** This product may be applied for pre-harvest annual and perennial weed control as a broadcast treatment to Roundup Ready Flex cotton after 60 percent boll crack. Up to 2 quarts of this product may be applied using either aerial or ground spray equipment.

**NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex

cotton.

**RESTRICTIONS:** Allow a minimum of 7 days between application and harvest of Roundup Ready Flex cotton. Do not apply this product over-the-top beyond first bloom to cotton grown for seed.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*)  
(Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

**Post-directed**

Management of early season weed competition and the development of a crop height differential between cotton and horseweed are often achieved by a combination of preplant burndown and postemergence over-the-top and/or directed applications of this product. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. Make in-crop, post-directed applications of MSMA (2 pounds active ingredient per acre) tank-mixed with diuron (0.5 to 0.75 pound active ingredient per acre) when the temperature is 80°F or higher.

**Control and Management of Glyphosate-Resistant Amaranthus spp.  
(Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**Management of Glyphosate-Resistant Amaranthus spp.**

If a naturally occurring glyphosate-resistant biotype of an Amaranthus species is present, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are registered in each state or for all sites or crops for the management of Amaranthus spp. When KULL 41 S is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Postemergence (In-crop) in Roundup Ready Flex Cotton**

**Preemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix with metolachlor prior to the 4-leaf stage in cotton for the control of Amaranthus spp.

**Preemergence to glyphosate-resistant Amaranthus spp. at layby**

Apply KULL 41 S to control emerged weeds, in a tank-mix with a residual herbicide product such as diuron (Direx) or flumioxazin (Valor) post-directed to control Amaranthus spp.

**Postemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix of MSMA and diuron (Direx) or flumioxazin (Valor), to control emerged Amaranthus spp.

**Control and Management of Glyphosate-Resistant Johnsongrass  
(Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in cotton cropping

systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Postemergence**

Apply this product to control emerged weeds, and in a tank-mix with SelectMAX (clethodim), Assure II (quizalofop) or Poast Plus (sethoxydim) for the suppression of emerged johnsongrass.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**11.7 Alfalfa with Round Up Ready® Gene**

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This label must be in the possession of the user at the time of application.

**Product Information**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

See "PRODUCT INFORMATION" AND "MIXING" sections of this label for essential product performance information.

THIS PRODUCT MAY BE USED FOR POSTEMERGENCE APPLICATION ONLY ON ALFALFA VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE.

The Roundup Ready designation indicates that the alfalfa contains a patented gene, which provides tolerance to this product.

Information on Roundup Ready alfalfa varieties may be obtained from your seed supplier or Ritter Chemical, LLC representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. Do NOT combine these instructions with other directions made for crop varieties that do not contain a Roundup Ready gene listed in the "ANNUAL AND PERENNIAL CROPS (Alphabetically)" section of this label.

**Application Instructions**

This product will control many troublesome emerged weeds with over-the-top applications in Roundup Ready alfalfa. Allow a minimum of 5 days between the last application and grazing, or, cutting and feeding of alfalfa forage and hay.

For ground applications with broadcast equipment, apply this product in 3 to 40 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with

ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

**For aerial application:** Use the directed rates of this product in 3 to 15 gallons of spray solution per acre.

DO NOT EXCEED 52 FLUID OUNCES OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATIONS BY AIR. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE SUPPLEMENTAL LABEL LOCATED UNDER AERIAL APPLICATION IN THAT STATE. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A ROUNDUP READY GENE. Do not apply during low-level inversion conditions, when winds are gusty or under any other conditions that favor drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the label booklet for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready alfalfa. Follow the cleaning procedures specified on the label of the product(s) used. Alfalfa can be very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

**Types of applications:** Preplant, At-planting, Preemergence and Postemergence.

**MAXIMUM ALLOWABLE APPLICATION RATES**

Combined total per year for all applications, including preplant during year of establishment	201 fl. ounces per acre
Combined total per year for in-crop applications for newly established and established stands	157 fl. ounces per acre
Preplant, At-planting and Preemergence single applications	52 fl. ounces per acre

**A. New Stand Establishment (seeding year)**

Prior to First Cutting During New Stand Establishment

From emergence up to 4 trifoliolate leaves	52 fl. ounces per acre
From 5 trifoliolate leaves up to 5 days before first cutting	52 fl. ounces per acre

After First Cutting in Newly Established Stands:

In-crop application, per cutting, up to 5 days before cutting.	52 fl. ounces per acre
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**B. Established Stands (non-seeding year)**

In-crop application, per cutting, up to 5 days before cutting.	52 fl. ounces per acre
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There are no rotational crop restrictions following applications of this product. For any crop NOT listed in the label booklet, applications must be made at least 30 days prior to planting.

**Over-the-top applications:** This product may be applied postemergence to Roundup Ready alfalfa from emergence until 5 days prior to cutting. Any single over-the-top application of this product should not exceed 52 fluid ounces per acre. Sequential applications of this product should be at least 7 days apart.

**Attention:** Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, over-the-top applications of this product will eliminate the non-Roundup Ready species.

During stand establishment, due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings may not contain a Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by the loss of plants not containing a Roundup Ready gene, a single application of at least 27 fluid ounces per acre of this product should be applied at or before the 3 to 4 trifoliolate growth stage.

In both newly seeded and established stands, in order to maximize yield and quality potential of forage and hay, applications of this product should be made after weeds have emerged but before alfalfa growth or re-growth interferes with application spray coverage of the target weeds.

**Weeds controlled:** For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL WEEDS RATE TABLE" and the "PERENNIAL WEEDS RATE TABLE" in this label. Some weeds with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some re-growth of weeds has occurred.

In addition to those weeds listed in the (product brand name) label booklet, this product will suppress or control the parasitic weed, Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. Repeat applications may be necessary for complete control.

**RESTRICTIONS:** Any single over-the-top application of this product must not exceed 52 fluid ounces per acre. Sequential applications of this product should be at least 7 days apart. The combined total per year for all in-crop applications in newly established and established stands must not exceed 157 fluid ounces per acre. Remove domestic livestock before application and wait a minimum of 5 days after last application before grazing, or cutting and feeding of Roundup Ready alfalfa forage and hay.

Read the "LIMIT OF WARRANTY OR LIABILITY" in this label before using. For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by Ritter Chemical, LLC when this product is used in conjunction with "brown bag" or "big run" seed saved from previous year's production and replanted.

### 11.8 Sugar Beets with the Roundup Ready Gene

**TYPES OF APPLICATIONS:** Preplant, Preemergence, At-Planting, Postemergence (In-Crop).

#### MAXIMUM ALLOWABLE APPLICATION RATES

Combined total per year for all applications	8 quarts per acre
Preplant, At-planting and Preemergence single applications	5 quarts per acre
Emergence to 8-leaf stage	2.5 quarts per acre
Between 8-leaf stage and canopy closure	2 quarts per acre

**PRECAUTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

**RESTRICTIONS:** The combined total application from crop emergence through harvest must not exceed 4.5 quarts per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 1.5 quarts per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1 quart per acre. Allow a minimum of 30 days between last application and sugar beet harvest.

#### Preplant, Preemergence, At-planting

**USE INSTRUCTIONS:** This product may be applied before, during or after planting of Roundup Ready sugar beets.

#### Postemergence (In-crop)

**USE INSTRUCTIONS:** This product may be applied postemergent over-the-top to Roundup Ready sugar beets from emergence to 30 days prior to harvest. To maximize yield potential spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for the labeled rates for specific annual weeds. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

### 11.9 Roundup Ready Canola (Spring Varieties)

Roundup Ready spring canola is defined as those Roundup Ready canola varieties that are seeded in the spring and harvested in the fall and do not enter a winter dormancy period.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop)

**USE INSTRUCTIONS:** Refer to the following table for the maximum application rates for this product with spring varieties of Roundup Ready canola.

**Maximum Application Rates**

Total of all Preplant, At-Planting, Preemergence applications	2 quarts per acre
Total of all In-crop applications from emergence to 6-leaf stage	1 quart per acre

**PRECAUTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

#### Preplant, At-planting, Preemergence

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready canola.

**RESTRICTION:** Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 2 quarts per acre per season.

#### Postemergence (In Crop)

**USE INSTRUCTIONS:** This product may be applied postemergence to spring varieties of Roundup Ready canola from emergence through the 6-leaf stage of development. Application made during bolting or flowering could result in crop injury and yield loss. To maximize yield potential, eliminate competing weeds early.

Single Application – Apply 16 to 24 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications, which may result in temporary yellowing, delayed flowering, and/or growth reduction. Similar crop injury could result when more than 16 fluid ounces per acre is applied after the 4-leaf stage.

Sequential Application – Apply 16 fluid ounces per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential application works best for control of early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass, or when more than one application is needed for adequate weed control.

**RESTRICTIONS:** No more than two in-crop (over-the-top) broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application must not exceed 32 fluid ounces of this product per acre. Allow a minimum of 60 days between last application and canola harvest.

### 11.10 Roundup Ready Canola (Winter Varieties)

Roundup Ready winter canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

**TYPES OF APPLICATION:** Pre-plant, At-Planting Preemergence, Postemergence (In-crop)

**USE INSTRUCTIONS:** Refer to the following table for maximum application rates of this product with winter varieties of Roundup Ready canola.

**Maximum Application Rates**

Total of all Preplant, At-Planting, Preemergence applications	2 quarts per acre
Total of all in-crop applications from emergence to canopy closure or prior to bolting in the spring	2 quarts per acre

**PRECAUTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for more information on the Maximum Application Rates.

**Preplant, At-Planting and Preemergence**

**USE INSTRUCTIONS:** This product may be applied before, during or after planting Roundup Ready canola.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product may be applied to winter varieties of Roundup Ready canola from emergence to canopy closure in the fall and prior to bolting in the spring. Application made during or after bolting could result in crop injury and yield loss. To maximize yield potential, eliminate competing weeds early.

Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered may require a sequential application of this product for control. Make second application after some weed re-growth has occurred and at least 60 days after a previous application of this product.

**Single Application**

Apply 24 to 32 fluid ounces of this product per acre in the fall when weeds are small and actively growing. Use the higher rate within this range when weed densities are high, when weeds have overwintered or when weeds become large and well established. Application of greater than 24 fluid ounces per acre prior to the 6 leaf stage may result in reduced crop growth in the fall. Avoid spray overlaps. Spray overlaps could result in temporary yellowing and/or growth reduction.

**Sequential Application**

Apply 16 to 32 fluid ounces of this product per acre to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential application works best for control of early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, sequential application may be required to reduce competition with the crop.

**RESTRICTIONS:** No more than two over-the-top broadcast applications may be made from crop emergence up to the onset of bolting, and the total in-crop application must not exceed 64 fluid ounces of this product per acre. Application of greater than 24 fluid ounces per acre prior to the 6-leaf stage could result in reduced crop growth in the fall. Allow a minimum of 60 days between last application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

**11.11 Corn Hybrids with Roundup Ready 2 Technology**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence (In-crop), Spot Treatment, Preharvest, Post-harvest

**USE INSTRUCTIONS:** Refer To the following table for maximum application rates of this product with corn hybrids and Roundup Ready 2 Technology.

**Maximum Application Rates**

Combined total per year for all applications	8 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	5 quarts per acre
Total of all In-crop applications from emergence through 48-inch corn	3 quarts per acre
Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formed) until 7 days before harvest*	1 quart per acre

\*see PRECAUTIONS AND RESTRICTIONS section for Preharvest application

**PRECAUTIONS:** See the "ROUNDUP READY CROPS" section of this label for precautionary instructions regarding the use of this product in Roundup Ready crops. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates. The use of the in-crop (over-the-top) rates described in these instructions on other than corn hybrids with Roundup Ready 2 Technology may cause crop injury and reduce yields.

**Preplant, At-Planting, Preemergence**

**USE INSTRUCTIONS:** This product may be applied alone in a tank mixture before, during or after planting.

**TANK MIXTURES:** This product may be tank-mixed with the products listed below. Ensure that the specific product being used is labeled for application prior to the emergence of corn. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use preplant, at-planting, and/or preemergence to corn:*

2,4-D, acetochlor, alachlor, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, dimethenamid, dimethenamid-p, flufenacet, flumetsulam, flumiclorac pentyl ester, isoxaflutole, linuron, metolachlor, s-metolachlor, metribuzin, pendimethalin, rimsulfuron, simazine

Aim, Aim EC, Axiom, Balance, Balance PRO, Banvel, Bicep MAGNUM, Bicep II MAGNUM, Bicep Lite II MAGNUM, Bullet, Cinch, Cinch ATZ, Clarity, Define, Degree, Degree Xtra, Distinct, Dual MAGNUM, Dual II MAGNUM, Epic, Frontier, FulTime, Guardsman, Guardsman MAX, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Keystone, Keystone LA, Lariat, Leadoff, Linex, Lorox, Marksman, Me-Too-Lachlor II, Micro-Tech, Outlook, Prowl, Python, Python II, Radius, Resolve, Resource, Shark, Stalwart, Stalwart C, Stalwart Xtra, Surpass, TopNotch]

**RESTRICTIONS:** Maximum quantity of this product may be applied for all preplant, at-planting and preemergence applications combined is 5 quarts per acre per season. Refer to individual tank-mix product label restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**Note:** For maximum weed control, make a postemergence (in-crop) application of this product following the use of the preemergence residual products listed above.

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** This product may be applied alone or in a tank mixture over the top of corn hybrids with Roundup Ready 2 Technology from emergence through the V8 stage (8 leaves with collars), or until corn height reaches 30 inches (free standing), whichever comes first. Use drop nozzles for optimum spray coverage and weed control when corn height is 24 to 30 inches. For corn heights 30 to 48 inches (free standing), apply this product using only ground application equipped with drop nozzles aligned to avoid spraying into the whorls of the corn plants. Single in-crop application of this product up

to 48-inch corn must not exceed 3 pints per acre. Sequential in-crop applications of this product from emergence through 48 inches in height must not exceed 3 quarts per acre per growing season.

When applied as directed, this product will control annual grasses and broadleaf weeds listed on this label. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. Make a postemergence application of 24 to 32 fluid ounces of this product per acre before weeds exceed 4 inches in height (before they become competitive with the crop). Repeat this application before new flushes of weeds exceed 4 inches in height.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Ensure that the specific product being used is labeled for application postemergence (in-crop) to corn. Read and follow label directions for all products in the tank mixture.

*[Insert active ingredient(s) or brand name of product(s) containing the following active ingredients that, at the time of printing, are registered for use postemergence (in-crop) to corn:*

2,4-D, atrazine, acetochlor, alachlor, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, foramsulfuron, halosulfuron-methyl, iodosulfuron-methyl-sodium, mesotrione, nicosulfuron, rimsulfuron, thifensulfuron methyl, tropamezone

Aim EC, Banvel, Basis, Basis Gold, Bullet, Callisto, Clarity, Degree, Degree Xtra, Distinct, Equip, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Impact, Marksman, Micro-Tech, Option, Resolve, Resource, Status]

Tank-Mix Partner	Maximum Height of Corn at Application
Degree Degree Xtra Harness Harness Xtra Harness Xtra 5.6L	11 inches
Bullet* Micro-Tech*	5 inches
atrazine	12 inches

\*Bullet and Mico-Tech are not registered for use as a postemergence application in Texas.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product under hard water conditions, drought conditions or when tank mixed with Bullet® or Micro-Tech® herbicides.

**PRECAUTION:** Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

**RESTRICTIONS:** Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product in-crop and harvest of corn forage or grain.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing

on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

Apply a tank mixture of this product (32 fluid ounces per acre) plus Clarity (8 to 16 fluid ounces per acre) or 2,4-D (0.5 to 1.0 pound active ingredient per acre) between corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

Dicamba may be included in the tank mixture with this product. Refer to the dicamba product label for the time intervals that are required between application and planting and other geographic use restrictions.

**Control and Management of Glyphosate-Resistant Amaranthus spp.  
(Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

**Management of Glyphosate-Resistant Amaranthus spp.**

If a naturally occurring glyphosate-resistant biotype of an Amaranthus species is present, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are registered in each state or for all sites or crops for the management of Amaranthus spp. When KULL 41 S is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Postemergence in Corn Hybrids with Roundup Ready 2 Technology (in-crop)**

Corn hybrids with Roundup Ready 2 Technology include Roundup Ready Corn 2 and seed products displaying the Roundup Ready 2 Technology logo.

**Preemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S to control emerged weeds, in a tank-mix with a preemergence residual herbicide product such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or another residual herbicide for the control of Amaranthus spp.

**Postemergence to glyphosate-resistant Amaranthus spp.**

Apply KULL 41 S in a tank-mix with other herbicides such as 2,4-D or dicamba (Clarity, Banvel, or Distinct), to control emerged weeds, and a residual herbicide product such as Harness Xtra, Harness Xtra 5.6L, or Degree Xtra for continued control of Amaranthus spp. Observe all maximum annual application rates and timing restrictions.

**Control and Management of Glyphosate-Resistant Common and Giant Ragweed (Ambrosia spp.)  
(Not Approved for this Use in California)**

**Management of Glyphosate-Resistant Ragweed Species**

To control a naturally occurring glyphosate-resistant biotype of common or giant ragweed, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action. Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.

Not all herbicides are labeled for management of ragweed species in all states or for all sites and crops. When this product is used in combination with other herbicides, refer to each product's label and observe all precautions and limitations on the label.

Tillage or a burndown herbicide application is encouraged prior to planting.

**Postemergence in Corn Hybrids with Roundup Ready 2 Technology (in-crop)**

**Preemergence to glyphosate-resistant ragweed species**

Apply this product, to control emerged weeds, in a tank-mix with a preemergence residual herbicide product containing atrazine, such as Harness Xtra, Harness Xtra 5.6L, Degree Xtra or another residual herbicide labeled for the control of ragweed species.

**Postemergence to glyphosate-resistant ragweed species**

Apply this product in a tank-mix with another herbicide, such as 2,4-D or dicamba (Clarity, Banvel, or Distinct), to control emerged weeds, and a residual herbicide product such as Harness Xtra, Harness Xtra 5.6L, or Degree Xtra for continued control of ragweed species. Observe all maximum annual application rates and timing restrictions for these products.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of ragweed species. When a tank-mix with a generic active ingredient, such as 2,4-D or atrazine is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

**Control and Management of Glyphosate-Resistant Johnsongrass  
(Not Approved for this Use in California)**

A naturally occurring glyphosate-resistant biotype of johnsongrass can be controlled in corn cropping systems by using this product along with an herbicide with a different mode of action labeled for preemergence and/or postemergence control of johnsongrass in combination with appropriate cultural weed control practices (e.g. crop rotation). Application of an herbicide with a different mode of action can be made either in a single tank-mix application with this product or in sequential applications.

**Postemergence in Corn Hybrids with Roundup Ready 2 Technology (in-crop)**

Apply this product, to control emerged weeds, in a tank-mix with Accent (nicosulfuron), Equip (foramsulfuron and iodosulfuron), or Option (foramsulfuron) for additional weed control and suppression of emerged johnsongrass.

**PRECAUTIONS:** Always read and follow all label directions for all products in the tank mixture. Some products have the potential to cause crop injury under certain conditions, growth stage and/or other circumstances. Read the label of all products used in the tank-mix prior to use to determine the potential for crop injury. Tank mixtures of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in every state or for all sites and crops for the management of johnsongrass species. When a tank-mix with a generic active ingredient, such as alachlor, metolachlor, pendimethalin or trifluralin is listed on this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities prior to mixing in the spray tank. Refer to individual product labels for precautions and restrictions; use according to the most restrictive precautionary statements for each product in the tank-mix.

### Preharvest

**USE INSTRUCTIONS:** This product may be applied for annual and perennial weed control prior to crop harvest at use rates up to 32 fluid ounces per acre. Make application at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).

**RESTRICTIONS:** A preharvest application of this product may only be made if the combined total of previously applied over-the-top or drop nozzle applications does not exceed 64 fluid ounces of this product per acre. Allow a minimum of 7 days between a preharvest application and harvest or feeding of corn stover or grain.

### Post Harvest

**USE INSTRUCTIONS:** This product may be applied for weed control after corn harvest. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the specific product being used is labeled for post-harvest application in corn. Read and follow label directions of all products in the tank mixture.

**RESTRICTION:** Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

### 11.12 Use in Roundup Ready® Alfalfa Seed Production

#### (Not Approved for this Use in California)

This product will control many troublesome emerged weeds with over-the-top (in-crop) application in Roundup Ready alfalfa grown for seed. In-crop application may be made from emergence through the late vegetative stage, and spot treatment may be made from early bud stage through seed harvest.

For ground application using broadcast equipment, apply this product in 3 to 40 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

For aerial application, apply the appropriate rate of this product in 3 to 15 gallons of spray solution per acre.

**DO NOT EXCEED 2 QUARTS OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATION BY AIR. AVOID DRIFT. USE EXTREME CARE WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS THAT DO NOT CONTAIN A GLYPHOSATE TOLERANCE GENE.** Do not apply during low-level inversion conditions, when winds are gusty or under any other conditions that favor drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the label booklet for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment.

**Sprayer Preparation:** It is important that sprayer and mixing equipment be clean and free of pesticide residue before using to apply this product to Roundup Ready alfalfa. Follow the cleaning procedures specified on the label of the last product(s) used. Alfalfa can be very sensitive to many herbicides at extremely low concentrations and care must be taken to thoroughly clean all equipment prior to use.

**TYPES OF APPLICATION:** Preplant, At-Planting, Preemergence, Postemergence, Spot Treatment, Post-harvest of seed

**USE INSTRUCTIONS:** For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL WEEDS RATE SECTION" and the "PERENNIAL WEEDS RATE SECTION" in this label booklet. Some weeds with multiple germination times or suppressed (stunted) weeds may require a second application of this product after some regrowth has occurred for complete control.

This product will also suppress or control the parasitic weed, Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa seed production fields. Repeat applications may be necessary for complete control.

Tank mixtures with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control. Buyer and all users are responsible for any and all loss or damage in connection with the use or

handling of mixtures of this product with herbicides or other materials that are not expressly identified on this labeling, or in separate supplemental labeling or Fact Sheets for this product.

Maximum Application Rates	
Combined total per year for all applications	8 quarts per acre
Total Preplant, At-Planting and Preemergence applications	2 quarts per acre
Total in-crop application rate from emergence through the late vegetative stage	6 quarts per acre

**Postemergence (In-crop)**

**USE INSTRUCTIONS:** Broadcast application of up to 2 quarts of this product per acre may be made over the top of Roundup Ready alfalfa from emergence through the late vegetative stage. Do not make a broadcast application of this product between the initiation of alfalfa budding and the harvest of seed. Make sequential applications of this product at least 7 days apart.

Due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings are susceptible and will not survive or thrive after the first application of this product. Make a single application of at least 1 quart of this product per acre at or before the 3 to 4 trifoliate growth stage to eliminate the effects of stand gaps created by the loss of non-Roundup Ready plants.

**Spot Treatment**

**USE INSTRUCTIONS:** For late emerging weeds, this product may be applied as a spot treatment in Roundup Ready alfalfa grown for seed during the early bud stage through seed harvest. Application made during this stage may result in reduced seed yield and quality, and are the responsibility of the grower. Make application on a spray-to-wet basis; do not spray to the point of runoff. If a spot treatment is made after the late vegetative stage, harvested seed must not be used for alfalfa sprout production.

**Post-Harvest**

**USE INSTRUCTIONS:** Following harvest of Roundup Ready alfalfa seed, the stand may be managed for forage and hay production. Refer to the Roundup Ready alfalfa section of this label booklet for use instructions in Roundup Ready alfalfa forage and hay production.

**RESTRICTIONS:** Do not make over-the-top (in-crop) broadcast applications of this product between the initiation of alfalfa budding and the harvest of Roundup Ready alfalfa seed. The use of harvested Roundup Ready alfalfa seed is not suitable for production of alfalfa sprouts. There are no rotational crop restrictions following application of this product. Any crop listed in this label booklet may be planted at any time; all other crops may be planted 30 days after application of this product.

**12.0 NON-CROP USES AROUND THE FARMSTEAD**

**TYPES OF APPLICATIONS:** Non-Selective Weed Control, Trim-and-Edge, Greenhouse/Shadehouse, Chemical Mowing, Cut Stumps, Habitat Management.

**12.1 Weed Control and Trim-and-Edge**

**USE INSTRUCTIONS:** This product may be used to control annual weeds, perennial weeds and woody brush which are found in any part of the farmstead, including building foundations, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, prior to landscape plantings and equipment storage areas.

**TANK MIXTURES:** This product may be tank-mixed with the following products. Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 1 quart per acre of this product when weeds are less than 6 inches tall, 1.5 quarts per acre when weeds are 6 to 12 inches tall and 2 quarts per acre when weeds are greater than 12 inches tall.

For perennial weeds, apply 2 to 5 quarts per acre in these tank mixes. For tank-mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the "ANNUAL WEEDS—HAND-HELD OR HIGH-VOLUME EQUIPMENT" section of this label for directed rates.

Arsenal <sup>®</sup>	Plateau <sup>®</sup>
Banvel/Clarity	Princep <sup>®</sup> DF
Barricade <sup>®</sup> 65WG	Princep Liquid
Diuron	Ronstar <sup>®</sup> 50 WP
Endurance <sup>®</sup>	Sahara <sup>®</sup>
Escort <sup>®</sup>	Simazine
Karmex DF	Surflan
Krovar I DF	Telar <sup>®</sup>
Oust <sup>®</sup>	Vanquish <sup>®</sup>
Pendulum <sup>®</sup> 3.3 EC	2,4-D
Pendulum WDG	

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

This product plus dicamba tank mixtures may not be applied by air in California.

## 12.2 Greenhouse/Shadehouse

This product may be used to control weeds in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

## 12.3 Chemical Mowing

**USE INSTRUCTIONS:** This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers. Use 16 fluid ounces of this product per acre when treating Bermudagrass. Use 64 fluid ounces of this product per acre when treating torpedograss or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

**PRECAUTION:** Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

## 12.4 Cut Stumps

**TYPES OF APPLICATION:** Treating cut stumps in any non-crop site listed on this label

**USE INSTRUCTIONS:** This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

Alder	Reed, giant
Eucalyptus	Saltcedar
Madrone	Sweetgum
Oak	Tan oak
Pepper, Brazilian	
Pine, Austrian	Willow

**RESTRICTIONS:** Do not make cut stump applications when the roots of desirable woody brush or trees may be grafted to the roots of the cut stump. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

## 12.5 Habitat Management

**TYPES OF USES:** Habitat Restoration and Maintenance, Wildlife Food Plots.

### Habitat Restoration and Maintenance

**USE INSTRUCTIONS:** This product may be used to control exotic and other undesirable vegetation in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement.

### Wildlife Food Plots

**USE INSTRUCTIONS:** This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage.

## 13.0 ANNUAL WEEDS RATE TABLE (Alphabetically by Species)

**USE WATER CARRIER VOLUMES OF 3 TO 10 GALLONS PER ACRE FOR GROUND APPLICATIONS AND 3 TO 5 GALLONS PER ACRE FOR AERIAL APPLICATIONS.**

Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small. Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

Do not tank mix with soil residual herbicides when using these rates unless otherwise specified.

For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

This product may be used up to 48 fluid ounces per acre where heavy weed densities exist.

**ANNUAL WEEDS RATE TABLE  
RATE**

(fluid ounces per acre)

WEED SPECIES	RATE				
	16	24	32	40	48
	Maximum height/length (in inches)				
Ammannia, purple	3	6	12	-	18
Annoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-
Barnyardgrass	-	3	6	7	9
Bassia, fivehook	-	-	6	-	-
Beggarweed, Florida	-	5	8	-	-
Bittercress	12	20	-	-	-
Bluegrass, annual	10	-	-	-	-
Bluegrass, bulbous	6	-	-	-	-
Brome, downy <sup>1,2</sup>	6	12	-	-	-
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild <sup>3</sup>	-	1	2	-	-
Burcucumber	-	6	12	-	18
Buttercup	12	20	-	-	-

Carolina geranium	-	-	4	-	9
Carpetweed		6	12	-	
Cheat <sup>2</sup>	6	20	-	-	
Chervil	20	-	-	-	-
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	-	36
Copperleaf, hophornbeam	-	2	4	-	6
Copperleaf, Virginia	-	2	4	-	6
Coreopsis, plains	-	6	12	-	18
Corn, volunteer	6	12	20	-	-
Corn speedwell	12	-	-	-	-
Crabgrass	3	6	12	-	-
Crowfootgrass		-	6	-	12
Cutleaf evening primrose		-	3	-	6
Devilsclaw (unicorn plant)	-	3	6	-	-
Dwarf dandelion	12	-	-	-	-
Eastern mannagrass	8	12	-	-	-
Eclipta	-	4	8	12	-
Fall panicum	4	-	6	-	12
Falsedandelion	-	20	-	-	-
Falseflax, smallseed	12	-	-	-	-
Fiddleneck	-	6	12	-	-
Field pennycress	6	12	-	-	-
Filaree	-	-	6	-	12
Fleabane, annual	6	20	-	-	-
Fleabane, hairy ( <i>Conyza bonariensis</i> )	-	-	6	-	10
Fleabane, rough	3	6	12	-	-
Florida pusley	-	-	4	-	6
Foxtail, giant, bristly, yellow	6	12	20	-	-
Foxtail, Carolina	10	-	-	-	-
Foxtail, green	12	-	-	-	-
Goatgrass, jointed	6	12	-	-	-
Goosegrass	-	3	6	-	12
Grain sorghum (milo)	6	12	20	-	-
Groundcherry	-	3	6	-	9
Groundsel, common	-	6	10	-	-
Hemp sesbania		2	4	6	8
Henbit		-	6	-	12
Horseweed/ Maretail ( <i>Conyza canadensis</i> )		6	12	-	18
Itchgrass	6	8	12	-	18
Jimsonweed	-	-	12	-	18
Johnsongrass, seedling	6	12	18	-	24
Junglerice	-	3	6	7	9
Knotweed		-	6	-	12
Kochia <sup>4</sup>	-	3 to 6	12	-	-
Lambsquarters	-	6	12	-	20
Little barley	6	12	-	-	-
London Rocket	6	-	24	-	-
Mayweed	-	2	6	12	18
Morningglory, annual ( <i>Ipomoea</i> spp.)	-	-	3	-	6
Mustard, blue	6	12	18	-	-
Mustard, tansy	6	12	18	-	-
Mustard, tumble	6	12	18	-	-

Mustard, wild	6	12	18	-	-
Nightshade, black	-	4	6	-	12
Nightshade, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed species	-	12	18	24	-
Prickly lettuce	-	6	12	-	-
Purslane	-	-	3	-	6
Ragweed, common	-	6	12	-	18
Ragweed, giant	-	6	12	-	18
Red rice	-	-	4	-	-
Rye, volunteer/cereal <sup>2</sup>	6	18	18+	-	-
Ryegrass	-	-	6	-	12
Sandbur, field	6	12	-	-	-
Sandbur, longspine	6	12	-	-	-
Shattercane	6	12	20	-	-
Shepherd's-purse	6	12	-	-	-
Sicklepod	-	2	4	-	8
Signalgrass, broadleaf	-	3	6	7	9
Smartweed, ladysthumb	-	-	6	-	9
Smartweed, Pennsylvania	-	-	6	-	9
Sowthistle, annual	-	-	6	-	12
Spanishneedles	-	-	6	-	12
Speedwell, purslane	12	-	-	-	-
Sprangletop	6	12	20	-	-
Spurge, prostrate	-	6	12	-	-
Spurge, spotted	-	6	12	-	-
Spurry, umbrella	6	-	-	-	-
Stinkgrass	-	12	-	-	-
Sunflower	12	18	-	-	-
Swinecress	-	5	12	-	-
Teaweed/Prickly sida	-	2	4	-	6
Texas panicum	6	8	12	-	-
Thistle, Russian <sup>5</sup>	-	6	12	-	-
Velvetleaf	-	-	6	-	12
Virginia pepperweed	-	18	-	-	-
Waterhemp	-	-	6	-	12
Wheat <sup>2</sup>	6	12	18	-	-
Wheat (overwintered)	-	6	12	-	18
Wild oats	3	6	18	-	-
Wild proso millet	-	6	12	-	-
Witchgrass	-	12	-	-	-
Woolly cupgrass	-	6	12	-	-
Yellow rocket	-	12	20	-	-

<sup>1</sup> For control of downy brome in no-till systems, use 24 fluid ounces per acre.

<sup>2</sup> Performance is better if application is made before this weed reaches the boot stage of growth.

<sup>3</sup> Use 24 fluid ounces per acre of this product to control wild buckwheat in the cotyledon to 2-leaf stage. Use 32 fluid ounces per acre to control 2- to 4-leaf wild buckwheat. For improved control of wild buckwheat over 2 inches in size, use sequential treatments of 32 fluid ounces followed by 32 fluid ounces of this product per acre.

<sup>4</sup> Do not treat kochia in the button stage.

<sup>5</sup> Control of Russian Thistle may vary based on environmental conditions and spray coverage. Whenever possible, a tank mixture with 2,4-D as described below may improve control.

**13.1 Annual Weeds—Rates for 10 to 40 Gallons per Acre**

Apply 1 to 2 quarts of this product per acre. Use 1 quart per acre if weeds are less than 6 inches tall, 1.5

quarts per acre if weeds are 6 to 12 inches tall and 2 quarts per acre if weeds are greater than 12 inches tall. These rates will provide control of weeds listed in the "ANNUAL WEEDS RATE TABLE" when water carrier volumes are 10 to 40 gallons per acre for ground applications. Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

**13.2 Annual Weeds—Tank Mixtures with 2,4-D, Dicamba, or Tordon 22K**

12 to 16 fluid ounces of this product plus 0.25 pound of dicamba or 0.5 pound of 2,4-D or 1 to 2 fluid ounces of Tordon 22K per acre will control the following weeds with the maximum height or length indicated: 6 inches—prickly lettuce, marestail/horseweed, morningglory, kochia (dicamba only) wild buckwheat (Tordon 22K only); 12 inches—cocklebur, lambsquarters, pigweed, Russian thistle (2,4-D only).

16 fluid ounces of this product plus 0.5 pound of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba or Tordon 22K is applied within 45 days of planting. Do not apply Dicamba tank mixtures by air in California.

This product may be tank-mixed with the products listed providing that the product to be tank-mixed is registered for use on this site.

**13.3 Annual Weeds—Hand-Held or High-Volume Equipment**

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE", apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 percent solution.

For best results, use a 2 percent solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods that result in less than complete coverage, use a 5 percent solution for annual and perennial weeds and a 5 to 10 percent solution for woody brush and trees.

**13.4 Annual Weeds—Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems**

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, do not exceed 1 pound of atrazine per acre.

24 to 28 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28 ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 0.125 pound of dicamba for control).

**14.0 PERENNIAL WEEDS RATE TABLE (Alphabetically by Species)**

Apply to actively growing perennial weeds.

**NOTE:** If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the directed stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage.

Best results are obtained when soil moisture is adequate for active weed growth.

Weed Species	Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
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Alfalfa	1-2	3-10	2%
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Make applications after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.

Alligatorweed	4	3-20	1.5%
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For partial control, apply when most of the plants are in bloom. Repeat applications will be required to maintain control.

Anise (fennel)	-	-	1-2%
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Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.

Bahaigrass	3-5	3-20	2%
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Apply when most plants have reached the early head stage.

Bentgrass	3-5	10-20	2%
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For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results.

Bermudagrass	3-5	3-20	2%
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For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.

Bermudagrass water (knotgrass)	1-1.5	5-10	2%
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Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Apply when water Bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field.

**Fall applications only:** Apply 1 quart of this product in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water Bermudagrass that is 12 to 18 inches in length.

This product is not registered in California for use on water Bermudagrass.

Bindweed, field	0.5-5	3-20	2%
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Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.

For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.

Also for control, apply 2 quarts of this product plus 0.5 pound of dicamba in 10 to 20 gallons of water per acre. Do not apply by air.

For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length.

In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control

will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

Bluegrass, Kentucky                    1-2                    3-40                    2%

Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

Blueweed, Texas                    3-5                    3-40                    2%

Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.

Brakenfern                    3-4                    3-40                    1-1.5%

Apply to fully expanded fronds that are at least 18 inches long.

Bromegrass, smooth                    1-2                    3-40                    2%

Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

Bursage, woolly-leaf                    -                    3-20                    2%

For control, apply 2 quarts of this product plus 0.5 pound of dicamba per acre. For partial control, apply 1 quart of this product plus 0.5 pound of dicamba per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

Canarygrass, reed                    2-3                    3-40                    2%

For best results, apply when most plants have reached the boot-to-head stage of growth.

Cattail                    3-5                    3-40                    2%

Apply when most plants have reached the early head stage.

Clover; red, white                    3-5                    3-20                    2%

Apply when most plants have reached the early bud stage.

Also for control, apply 16 to 32 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.

Cogongrass                    3-5                    10-40                    2%

Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Dallisgrass                    3-5                    3-20                    2%

Apply when most plants have reached the early head stage.

Dandelion                    3-5                    3-40                    2%

Apply when most plants have reached the early bud stage of growth.

Also for control, apply 16 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre.

Dock, curly	3-5	3-40	2%
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Apply when most plants have reached the early bud stage of growth.

Also for control, apply 16 to 32 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D in 3 to 10 gallons of water per acre.

Dogbane, hemp	4	3-40	2%
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Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall.

For suppression, apply 16 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.

Fescue, (except tall)	3-5	3-20	2%
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Apply when most plants have reached the early head stage.

Fescue, tall	1-3	3-40	2%
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Apply 3 quarts of this product per acre when most plants have reached boot-to-early seedhead stage of development.

**Fall applications only:** Apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 1 pint per acre of this product will improve long-term control and control seedlings germinating after fall treatments or the following spring.

Guineagrass	2-3	3-40	1%
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Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment.

In Texas and ridge of Florida, use 2 quarts for control. In the flatwoods region of Florida, 3 quarts is required for control.

Horsenettle	3-5	3-20	2%
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Apply when most plants have reached the early bud stage.

Horseradish	4	3-40	2%
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Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.

Iceland	-	-	1.5-2%
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Iceland should be at or beyond the early bud stage of growth. Thorough coverage is necessary for best control.

Jerusalem artichoke	3-5	3-20	2%
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Apply when most plants are in the early bud stage.

Johnsongrass	0.5-3	3-40	1%
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In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 2 to 3 quarts of this product in 10 to 40

gallons of water per acre.

For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank mix with residual herbicides when using 1 quart of this product per acre.

For burndown of Johnsongrass, apply 1 pint of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage.

Spot treatment (partial control or suppression)—Apply a 1 percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.

Kikuyugrass	2-3	3-40	2%
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Spray when most kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth). Allow 3 or more days after application before tillage.

Knapweed	4	3-40	2%
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Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.

Lantana	-	-	1-1.25%
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Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

Lespedeza	3-5	3-20	2%
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Apply when most plants have reached the early bud stage.

Milkweed, common	3	3-40	2%
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Apply when most plants have reached the late bud to flower stage of growth.

Muhly, wirestem	1-2	3-40	2%
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Use 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or non-agricultural areas. Spray when the wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.

Mullein, common	3-5	3-20	2%
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Apply when most are in early bud stage.

Napierglass	3-5	3-20	2%
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Apply when most plants are early head stage.

Nightshade silverleaf	2	3-10	2%
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Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.

Nutsedge; purple or yellow	0.5-3	3-40	1-2%
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Apply 3 quarts of this product per acre or apply a 1 to 2 percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers.

Sequential applications: 1 to 2 quarts of this product in 3 to 10 gallons of water per acre will also provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall).

Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control.

For partial control of existing plants, apply 1 pint to 2 quarts of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.

Ochardgrass                      1-2                      3-40                      2%

Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.

Orchardgrass sods going to no-till corn: Apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

Pampasgrass                      -                      -                      1.5-2%

Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.

Paragrass                      3-5                      3-20                      2%

Apply when most plants are in the early head stage.

Phragmites                      3-5                      10-40                      1-2%

For partial control and best results, treat during late summer or fall when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visible control symptoms will be slow to develop.

Poison hemlock                      -                      -                      1-2%

Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.

Pokeweed, common                      1.0                      3-40                      2%

Apply to actively growing plants up to 24 inches tall.

Quackgrass                      1-3                      3-40                      2%

In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1 quart of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 2 quarts of this product. Do not tank mix with residual herbicides when using the 1-quart rate. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results.

In pastures, sods or non-agricultural areas where deep tillage does not follow application: Apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.

Redvine                      0.75-2                      5-10                      2%

For suppression, apply 24 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply directed rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Reed, giant                      -                      -                      2%

Best results are obtained when applications are made in late summer to fall.

Ryegrass, perennial                    1-3                    3-40                    1%

In annual cropping systems apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In non-crop, or areas where annual tillage (no-till) is not practiced, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre.

For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank-mix with residual herbicides when using 1 quart of this product per acre.

Smartweed, swamp                    3-5                    3-40                    2%

Apply when most plants have reached the early bud stage of growth. Also for control, apply 16 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.

Sowthistle, perennial                    2-3                    3-40                    2%

Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

Spurge, leafy                    -                    3-10                    2%

For suppression, apply 16 fluid ounces of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.

Starthistle, yellow                    2                    10-40                    2%

Best results are obtained when applications are made during the rosette, bolting and early flower stages.

Sweet potato, wild                    -                    -                    2%

For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

Thistle, artichoke                    -                    -                    2%

For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.

Thistle, Canada                    2-3                    3-40                    2%

Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.

For suppression in the spring, apply 1 quart of this product, or 1 pint of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.

Timothy                    2-3                    3-40                    2%

For best results, apply when most plants have reached the boot-to-head stage of growth.

Torpedograss                    4-5                    3-40                    2%

For partial control, apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost.

Trumpet creeper	2	5-10	2%
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For partial control, apply in late September or October, to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.

Vaseygrass	3-5	3-20	2%
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Apply when most plants are in the early head stage.

Velvetgrass	3-5	3-20	2%
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Apply when most plants are in the early head stage.

Wheatgrass, western	2-3	3-40	2%
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For best results, apply when most plants have reached the boot-to-head stage of growth.

### 15.0 WOODY BRUSH AND TREES RATE TABLE (Alphabetically by Species)

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Unless otherwise directed, apply broadcast treatments in 3 to 40 gallons of water per acre. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Rate (QT/A)	Hand-Held % Solution	Comments*
*PC=Partial Control; C=Control			
Alder	3-4	1-1.5%	C
Ash	2-5	1-2%	PC
Aspen, quaking	2-3	1-1.5%	C
Bearmat (Bearclover)	2-5	1-2%	PC
Beech	2-5	1-2%	PC
Birch	2-5	1-1.5%	C
Blackberry	3-4	1-1.5%	C

Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 0.75 percent solution of this product. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.

Blackgum	2-5	1-2%	C
Bracken	2-5	1-2%	C
Broom;	—	1.5-2%	C
French, Scotch			
Buckwheat, California	—	1-2%	C

Thorough coverage of foliage is necessary for best results.

Cascara	2-5	1-2%	PC
Catsclaw	—	1-1.5%	PC
Ceanothus	2-5	1-2%	PC
Chamise	—	1%	C

Thorough coverage of foliage is necessary for best results.

Cherry; bitter, black, pin	2-3	1-1.5%	C
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Coyote brush	—	1.5-2%	C
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Apply when at least 50 percent of the new leaves are fully developed.

Dogwood	2-5	1-2%	PC
Elderberry	2-3	1-1.5%	C
Elm	2-5	1-2%	PC
Eucalyptus	—	2%	C

For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.

Florida holly (Brazilian Peppertree)	2-5	1-2%	PC
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Gorse	2-5	1-2%	PC
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Hasardia	—	1-2%	PC
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Thorough coverage of foliage is necessary for best results.

Hawthorn	2-3	1-1.5%	C
Hazel	2-3	1-1.5%	C
Hickory	2-5	1-2%	PC
Honeysuckle	3-4	1-1.5%	C
Hornbeam, American	2-5	1-2%	PC
Kudzu	4-5	2%	C

Repeat applications may be required to maintain control.

Locust, black	2-4	1-2%	PC
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Madrone resprouts	—	2%	PC
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Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.

Manzanita	2-5	1-2%	PC
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Maple, red	2-4	1-1.5%	C
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Apply a 1 to 1.5 percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre.

Maple, sugar	—	1-1.5%	C
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Apply when at least 50 percent of the new leaves are fully developed.

Monkeyflower	—	1-2%	PC
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Thorough coverage of foliage is necessary for best results.

Oak; black, white	2-4	1-2%	PC
Oak, post	3-4	1-1.5%	C
Oak; northern	—	1-1.5%	C

Apply when at least 50 percent of the new pin leaves are fully developed.

Oak; southern red	2-3	1-1.5%	C
Persimmon	2-5	1-2%	PC
Pine	2-5	1-2%	C
Poison ivy/ Poison oak	4-5	2%	C

Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Poplar, yellow	2-5	1-2%	PC
Redbud, eastern	2-5	1-2%	C
Rose, multiflora	2	1%	C

Treatments should be made prior to leaf deterioration by leaf-eating insects.

Russian olive	2-5	1-2%	PC
Sage, black	—	1%	C

Thorough coverage of foliage is necessary for best results.

Sage, white	2-5	1-2%	PC
Sage brush, California	—	1%	C

Thorough coverage of foliage is necessary for best results.

Salmonberry	2-3	1-1.5%	PC
Saltcedar	2-5	1-2%	C
Sassafras	2-5	1-2%	PC
Sourwood	2-5	1-2%	PC
Sumac; poison, smooth, winged	2-4	1-2%	PC
Sweetgum	2-3	1-1.5%	C
Swordfern	2-5	1-2%	PC
Tallowtree, Chinese	—	1%	C

Thorough coverage of foliage is necessary for best results.

Tan oak resprouts	—	2%	PC
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Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.

Thimbleberry	2-3	1-1.5%	C
Tobacco, tree	—	1-2%	PC
Trumpet creeper	2-3	1-1.5%	C
Vine maple	2-5	1-2%	PC
Virginia creeper	2-5	1-2%	C
Waxmyrtle,	2-5	1-2%	PC

southern  
Willow                      3-4                      1-1.5%                      C

[THE TEXT BELOW WILL ONLY BE ON THE FORMULATIONS WITH 7.5% SURFACTANT (SOLD AS ALECTO 41 HL) AND WITHOUT SURFACTANT (SOLD AS ALECTO 41 UL)]

**SILVICULTURAL SITES**

Note: Not to be used for use as an over-the-top broadcast spray in silvicultural nurseries.

When applied as directed for "Silvicultural Sites" under conditions described, this product controls undesirable vegetation listed on this label. This product also suppresses or controls undesirable vegetation listed on this label when applied at directed rates for release of established coniferous species listed on this label.

For specific rates of application and instructions for control of various brush, annual and perennial weeds, see the "WEEDS CONTROLLED" section of this label.

Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

**Aerial Application** - This product may be applied using aerial spray equipment for silvicultural site preparation.

See the "APPLICATION EQUIPMENT AND TECHNIQUES" part of the "MIXING, ADDITIVES AND APPLICATION INSTRUCTIONS" section of this label for information on how to apply this product by air.

**Site Preparation**

Following preplant applications of this product, any silvicultural species may be planted.

**Postdirected Spray**

In established silvicultural sites, use as a spray on the foliage of undesirable vegetation. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of desirable species.

**16.0 LIMIT OF WARRANTY AND LIABILITY**

Ritter Chemical LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise. To the extent consistent with applicable law, Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this

Company.

For over-the-top uses on Roundup Ready crop varieties crop safety and weed control performance are not warranted by Ritter Chemical LLC when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT-OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

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Aim, Authority, Command and Gauntlet are trademarks of FMC Corporation.

Sim-Trol is a trademark of Sipcam Agro USA, Inc.

Reflex is a trademark of Zeneca Limited.

Ritter Chemical LLC  
P.O. Box 430974  
Houston, Texas 77243  
(Formulated in the USA)

In case of an emergency involving this product, Call 1-800-764-7661

**Sublabel C: Industrial, Turf and Ornamental Uses**  
**FOR INDUSTRIAL, TURF AND ORNAMENTAL WEED CONTROL**

**KULL 41 S**

*[Alternate Brand Names: KULL 41, Alecto 41S and Alecto 41, Alecto 41 UL, Alecto 41 HL, Lajj and Lajj Plus]*

GROUP	9	HERBICIDE
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*Systemic Weed Control*  
*<sup>†</sup>Quality Assured*

For the following uses:

- Cut stumps
- Non-crop and industrial use sites
- Forestry Site Preparation
- Weed control, trim-and-edge, and bare ground
- Chemical mowing – Perennials
- Chemical mowing – Annuals
- Dormant turfgrass
- Actively growing Bermudagrass
- Turfgrass Renovation, Seed or Sod Production
- Habitat restoration and management
- Wildlife food plots
- Injection and frill (woody brush and trees)
- Ornamentals
- Parks, recreational, and residential areas
- Railroads
- Bare ground ballast and shoulders, crossings, and spot treatment
- Brush control
- Bermudagrass release
- Roadsides
- Shoulder treatments
- Guardrails and other obstacles to mowing
- Spot treatment
- Release of Bermudagrass or Bahiagrass
- Rangelands
- Utility Sites

**Complete Directions for Use**

EPA Reg. No. 9468-33  
EPA Est. No. 9468-OR-001; 9468-TX-001; 9468-TX-002; 47258-TX-01, 82784-GTM-001; 75460-CHN-001;  
72949-CHN-001; 81346-CHN-001; 75464-CHN-001; 81347-CHN-001; 81889-CHN-001

**AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.**

Read the entire label before using this product.

Use only according to label instructions.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Not all products directed on this label are registered for use in California. Check the registration status of each product in California before using.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

† Ritter Chemical LLC warrants that this product conforms to the chemical description on the label.

**Container Label Statement:**

THIS IS AN END-USE PRODUCT. RITTER CHEMICAL LLC DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. IT IS INTENDED THAT REPACKAGING BE ONLY IN ACCORDANCE WITH A RITTER CHEMICAL LLC REPACKAGING OR TOLL REPACKAGING AGREEMENT.

**INGREDIENTS**

**ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt..... 41.0%

**OTHER INGREDIENTS:**..... 59.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

**IMPORTANT PHONE NUMBERS**

IN CASE OF EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL ASSISTANCE, DAY OR NIGHT, CALL 1-800 - 764 – 7661

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear: long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves.

**Keep Out of Reach of Children  
CAUTION**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as KULL 41 S, EPA Reg. No.9468-33. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 9 a.m. to 5 p.m. After 5:00 p.m. call your poison control center at 1-800-222-1222.</p>	

95/135

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

Manufactured for:  
Ritter Chemical LLC  
P.O. Box 430974  
Houston, Texas 77243  
(Formulated in the USA)

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**  
Users should:  
• Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.  
• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS**

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

**Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

**Storage and Disposal**

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**Pesticides Storage:** Keep container closed to prevent spills and contamination. Store this product in a cool dry place out of reach of children and domestic animals. Store in original container only. Do not allow this product to freeze.

**Pesticide Disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

**Empty Container Disposal:**

[FOR NON-REFILLABLE CONTAINERS LESS THAN 5 GALLONS:]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[FOR NON-REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[FOR REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**PRODUCT INFORMATION**

**Product Description:** This product is a postemergent, systemic herbicide with no soil residual activity. It gives broad spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as water-soluble liquid (containing surfactant).

**Time to Symptoms:** This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds

may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visible symptoms. Visible effects are gradual wilting and yellowing of the plant which advance to complete browning of above ground growth with deterioration of underground plant parts.

**Stage of Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at later growth stages approaching maturity.

**Mode of Action in Plants:** The active ingredient in this product inhibits an enzyme found only in plants that is essential to formation of specific amino acids.

**Cultural Considerations:** Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended stage for treatment.

**Rainfastness:** Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

**No Soil Activity:** Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide.

**Tank Mixing:** This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly directed in this label. Mixing this product with herbicides or other materials not listed on this label may result in reduced performance.

**Annual Maximum Use Rate:** The combined total of all treatments must not exceed 10.6 quarts of this product per acre per year.

**ATTENTION**

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

**NOTE:** Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

**WEED RESISTANCE MANAGEMENT**

GROUP	9	HERBICIDE
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Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or by using other cultural or mechanical practices.

### Weed Management Practices

To minimize the occurrence of glyphosate-resistant biotypes, observe the following weed management practices:

- Scout your application site before and after herbicide application.
- Control weeds early when they are relatively small.
- Incorporate other herbicides and cultural or mechanical practices as part of your weed control system where appropriate.
- Use the application rate for the most difficult to control weed on the site. Avoid tank mixtures with other herbicides that reduce the efficacy of this product (through antagonism) or with ones that encourage application rates of this product below those specified on this label.
- Control weed escapes and prevent weeds from setting seeds.
- Use new commercial seed that is as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Ritter Chemical LLC representative, local retailer, or county extension agent.

### Management of Glyphosate-Resistance Biotypes

**Note:** Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Ritter Chemical LLC representative to determine if resistance in any particular weed biotype has been confirmed in your area. Directions for the control of biotypes confirmed to be resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and can be obtained from your local retailer or Ritter Chemical LLC representative.

Since the occurrence of new glyphosate-resistant weeds cannot be determined until after product use and scientific confirmation, Ritter Chemical LLC is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

**The following good agronomic practices can reduce the spread of confirmed glyphosate-resistant biotypes:**

- If a naturally-occurring resistant biotype is present in your field, this product can be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices may also be used as appropriate.
- Scout treated sites after herbicide application and control escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before a site known to contain resistant biotypes.

### MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

**NOTE:** REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

#### Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the directed amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

#### Surfactant

For KULL 41 S and Alecto 41S only:

No additional surfactant in the spray solution is needed or recommended.

[For KULL 41 HL and Alecto 41 HL – containing 7.5% surfactant load]

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding (additional) surfactant, (use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution)) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

[For KULL 41 and Alecto 41 UL –formulations without the surfactant]

This product requires the use of a nonionic surfactant. When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of the surfactant may enhance performance. Examples of when to use the higher surfactant rate include, but are not limited to: hard-to-control woody brush, trees, and vines, high water volumes, adverse environmental conditions, tough-to-control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc. These surfactants should not be used in excess of 1 quart per acre when making broadcast applications. Always read and follow the manufacturer's surfactant label recommendations for best results. Carefully observe all cautionary statements and other information appearing in the surfactant label. When applied as directed under conditions described, this product controls annual and perennial weeds listed in the label booklet. Do not reduce rates of this product when adding surfactant. Do not add buffering agents or pH adjusting agents to the spray solution when (Product brand name) is the only pesticide used.

**Tank Mixing Procedure**

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the directed amount of this product.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation may be required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to the "Tank Mixing" section of "PRODUCT INFORMATION" for additional precautions.

**Mixing for Hand-held Sprayers**

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

**Spray Solution**

Desired Volume	Amount of KULL 41 S					
	1/2%	1%	1-1/2%	2%	5%	10%
1 Gal	2/3 oz	1-1/3 oz	2 oz	2-2/3 oz	6-1/2 oz	13 oz
25 Gal	1 pt	1 qt	1-1/2 qt	2 qt	5 qt	10 qt
100 Gal	2 qt	1 gal	1-1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-sprayers, it is suggested that the directed amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

**Colorants or Dyes**

Agriculturally-approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilution. Use colorants or dyes according to the manufacturer's recommendations.

**APPLICATION EQUIPMENT AND TECHNIQUES**

Do not apply this product through any type of irrigation system.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

### SPRAY DRIFT MANAGEMENT

AVOID DRIFT, EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather related factors determine the potential for spray drift. The applicator and the grower is responsible for considering all these factors when making decisions.

### AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications or to public health uses.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

### Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see the "Wind", "Temperature and Humidity", and "Temperature Inversions" sections of this label).

### Controlling Droplet Size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the air stream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzles types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

- **Application Height:** Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

**Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller droplets, etc.).

**Wind**

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

**Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions**

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive areas**

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

**Aerial Equipment**

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus Banvel™ and 2,4-D tank mixtures may not be applied by air in California.

AVOID DRIFT – DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Avoid direct application to any body of water.

Use the directed rates of this herbicide in 3 to 25 gallons of water per acre.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the

cautionary statements and all other information appearing on the additive label.

Ensure uniform application – To avoid streaked, uneven or overlapped application, use appropriate marking devices.

**PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear are most susceptible.

#### **Ground Broadcast Equipment**

Use the directed rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

#### **Hand-Held and High-Volume Equipment**

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the "Annual Weeds" section of "WEEDS CONTROLLED", apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 percent solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 2 percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

For low volume directed spray applications, use a 5 to 10 percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense or where there are multiple sprouts.

#### **Selective Equipment**

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars after dilution and thorough mixing with water to listed weeds growing in any non-crop site specified on this label.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper or sponge applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

**AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION AS SERIOUS INJURY OR DEATH IS LIKELY TO OCCUR.**

Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

#### **Shielded and Hooded Applicators**

Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

**Wiper Applicators and Sponge Bars**

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds not greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

**For Rope or Sponge Wick Applicators** – Solutions ranging from 33 to 75 percent of this product in water may be used.

**For Porous-Plastic Applicators and pressure-feed systems** – Solutions ranging from 33 to 100 percent of this product in water may be used.

When applied as directed, this product **CONTROLS** the following weeds:

- |                 |                  |
|-----------------|------------------|
| Corn, volunteer | Sicklepod        |
| Panicum, Texas  | Spanishneedles   |
| Rye, common     | Starbur, bristly |
| Shattercane     |                  |

When applied as directed, this product **SUPPRESSES** the following weeds:

- |                        |                 |
|------------------------|-----------------|
| Beggarweed, Florida    | Ragweed, common |
| Bermudagrass           | Ragweed, giant  |
| Dogbane, hemp          | Smutgrass       |
| Dogfennel              | Sunflower       |
| Guineagrass            | Thistle, Canada |
| Johnsongrass           | Thistle, musk   |
| Milkweed               | Vaseygrass      |
| Nightshade, silverleaf | Velvetleaf      |
| Pigweed, redroot       |                 |

**Injection Systems**

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injection systems unless specifically recommended.

**CDA Equipment**

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

CDA equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction is likely to result.

**SITE AND USE DIRECTIONS**

Detailed instructions follow alphabetically, by site.

Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial and woody brush tables. Refer also to the "SELECTIVE EQUIPMENT" section.

**Cut Stumps**

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

- |             |           |
|-------------|-----------|
| Alder       | Saltcedar |
| Eucalyptus  | Sweetgum  |
| Madrone     | Tan oak   |
| Oak         | Willow    |
| Reed, giant |           |

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING IS LIKELY TO OCCUR IN ADJACENT WOODY BRUSH OR TREES.

**Non-crop and Industrial Use Sites**

Use in areas including airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf seed farms, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

**Control and Management of Glyphosate-Resistant Horseweed (Marestail, *Conyza canadensis*) (Not Approved for this Use in California)**

For ground application, apply in 10 to 20 gallons of water per acre. For aerial application, apply in 3 to 15 gallons of water per acre.

For tank mixtures, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling and/or Fact Sheets published separately for all herbicides used.

Apply 1 quart of this product per acre in a tank mixture with one or more of the following products at the rosette stage before horseweed exceeds 6 inches in height. Ensure that the specific product being used is labeled for use on the target site. Refer to the product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

- |                      |                |           |           |
|----------------------|----------------|-----------|-----------|
| 2,4-D <sup>1</sup>   | Krovar I DF    | Overdrive | Velpar DF |
| Crossbow L           | Landmark II MP | Telar DF  |           |
| dicamba <sup>1</sup> | Landmark MP    | Transline |           |
| Gallery 75 DF        | Milestone      | Vanquish  |           |

<sup>1</sup>Tank mixtures with products containing this generic active ingredient may be made provided the specific product is labeled for this use.

**ATTENTION**

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

**Control and Management of Glyphosate-Resistant Ryegrass**

**(Not Approved for this Use in California)**

This product may be tank-mixed with other herbicides for application in accordance with label directions. Follow all precautions and use instructions contained within each product's labeling, and use in accordance with the most restrictive label limitations. Some products have the potential to cause crop injury under certain conditions, at certain crop growth stages, and/or other circumstances. Read all labels for products used in tank mixtures to determine the potential for injury prior to use. Always predetermine the compatibility of all products used in the tank mixture by mixing small proportional quantities in advance. A tank mixture of this product with other herbicides may cause incompatibility, antagonism, or a reduction in product efficacy. Ritter Chemical LLC has not tested all tank-mix product formulations for compatibility, performance, and crop safety.

Not all herbicides are registered in each state or for all use-sites (orchards, non-crop use sites, or ditch banks) or crops for the management of ryegrass. Non-crop use sites include airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf seed farms, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management areas.

When KULL 41 S is used in combination with other herbicides, refer to each product label and observe all precautions and limitations.

**Preemergence to Glyphosate-Resistant Ryegrass**

Apply KULL 41 S to control emerged weeds, in a tank-mix with a preemergence herbicide product for the control of ryegrass.

**Preemergence and Postemergence to Glyphosate-Resistant Ryegrass**

Apply KULL 41 S to control emerged weeds, in a tank-mix with a residual preemergence herbicide product and a postemergence herbicide product (other than glyphosate) labeled for control of ryegrass. Make application before ryegrass exceeds 4 inches in height.

**Postemergence to glyphosate-resistant ryegrass**

Apply KULL 41 S to control emerged weeds, in a tank-mix with another postemergence herbicide product labeled for control of ryegrass. Make application before ryegrass exceeds 4 inches in height.

**Foliar and Broadcast Treatment of Japanese Knotweed and Oriental Bittersweet  
(Not approved for this Use in California)**

**Japanese knotweed**

For control of Japanese knotweed (*Polygonum cuspidatum*), this product may be applied as a 2.5-percent (by volume) spray-to-wet solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast application, apply 4 quarts of this product in 3 to 40 gallons of spray solution per acre.

Late summer or fall application is ideal, while leaves are still green and after fruit formation.

**Oriental Bittersweet**

For control of Oriental bittersweet (*Celastrus orbiculatus*), this product may be applied as a 2.0-percent (by volume) spray-to-wet solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast application, apply 3 quarts of this product in 3 to 40 gallons of spray solution per acre.

Late summer or fall application is ideal, while leaves are still green and after fruit formation.

**Forestry Site Preparation**

This product may be used for the control or partial control of woody brush, trees and herbaceous weeds in forestry in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product may be used in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

Refer to the "WEEDS CONTROLLED" section of this label for specific application rates and instructions. Use the higher rates of this product within the specified range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the specified range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil.

Unless otherwise directed, do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.

**TANK MIXTURES:** Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank-mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

**NOTE:** For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

This product may be used in a tank-mix with the following products for forestry site preparation:

- Arsenal Applicators Concentrate
- Chopper
- Escort or Escort XP
- Garlon 3A
- Garlon 4A
- Lankmark XP
- Oust or Oust XP
- Westar

For control of herbaceous weeds, use the lower specified tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher application rates.

**Weed control, Trim-and-edge and Bare ground**

This product may be used in Non-crop and Industrial Use Sites (refer to Non-crop and Industrial Use Sites section above for complete listing of permitted use sites). It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around objects in non-crop sites, for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

**TANK MIXTURES:** This product may be tank mixed with the following products. Refer to these product's labels for approved non-crop sites and application rates.

- |            |                 |
|------------|-----------------|
| ARSENAL™   | PLATEAU™        |
| BANVEL     | PRINCEP™ DF     |
| BARRICADE™ | PRINCEP™ LIQUID |
| DIURON     | RONSTAR™ 50WP   |
| ENDURANCE™ | SAHARA™         |

- |                  |           |
|------------------|-----------|
| ESCORT™          | SIMAZINE  |
| GARLON™ 3A       | SURFLAN™  |
| GARLON 4         | TELAR™    |
| KARMEX™ DF       | VANQUISH™ |
| KROVAR™ 1 DF     | 2,4-D     |
| MANAGE®          |           |
| OUST             |           |
| PENDULUM™ 3.3 EC |           |
| PENDULUM WDG     |           |

This product plus dicamba tank mixtures may not be applied by air in California.

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 1 to 2 quarts of this product plus 2 to 4 ounces of Oust per acre.

- |              |               |
|--------------|---------------|
| Bahiagrass   | Johnsongrass  |
| Bermudagrass | Poorjoe       |
| Broomsedge   | Quackgrass    |
| Dallisgrass  | Vaseygrass    |
| Dock, curly  | Vervain, blue |
| Dogfennel    |               |
| Fescue, tall |               |

**Chemical Mowing – Perennials**

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass or quackgrass covers. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

**Chemical Mowing – Annuals**

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 4 to 5 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

**Dormant Turfgrass**

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Treat only when turf is dormant and prior to spring greenup.

Apply 8 to 64 fluid ounces of this product per acre. Apply the directed rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 16 fluid ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for dormant bermudagrass and bahiagrass treatments.

**Actively growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. DO NOT apply more than 16 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus OUST in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for actively growing Bermudagrass treatments. Use only in areas where some temporary injury or

discoloration can be tolerated.

**Turfgrass Renovation, Seed or Sod Production**

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any re-growth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

**RESTRICTIONS:** Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow translocation into underground plant parts. If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate was greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Habitat Management**

**Habitat Restoration and Management**

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

**Wildlife Food Plots**

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

**Injection and Frill (Woody Brush and Trees)**

This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 0.04 fluid ounce (1 milliliter) of this product for every 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100-percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100-percent concentration of this product. For best results, apply during periods of active growth and after full leaf expansion. This product will control many species, some of which are listed below:

<b>Control</b>	<b>Partial Control</b>
Oak	Black gum
Poplar	Hickory
Dogwood	Maple, red
Sweetgum	

**Hollow Stem Injection**

This product may be applied through hand-held injection devices that deliver the proper amount of this product into targeted hollow-stem plants growing in any non-crop site specified on this label.

For control of the following hollow-stem plants, follow the use instructions below:

**Castorbean, *Ricinus communis***

Inject 4 milliliters of this product per plant into the lower portion of the main stem.

**Hemlock, Poison, *Conium maculatum***

Inject one leaf cane per plant 10 to 12 inches above the root crown with 6 milliliters of a 5-percent (by volume) solution of this product.

**Hogweed, Giant, *Hercleum mantegazzianum***

Inject one leaf cane per plant 12 inches above the root crown with 6 milliliters of a 5-percent (by volume) solution of this product.

**Horsetail, Field, *Equisetum arvense***

Inject one segment above the root crown with 0.6 milliliter of this product per stem. Use a low-volume syringe capable of accurately delivering this amount of product.

**Knotweed, Bohemian, *Polygonum bohemicum***

Inject 6 milliliters of this product per stem between the second and third internode.

**Knotweed, Giant, *Polygonum sachalinense***

Inject 6 milliliters of this product per stem between the second and third internode.

**Knotweed, Japanese, *Polygonum cuspidatum***

Inject 6 milliliters of this product per stem between the second and third internode.

**Reed, Giant, *Arundo donax***

Inject 6 milliliters of this product per stem between the second and third internode.

**Thistle, Canada, *Cirsium arvense***

Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.6 milliliter of this product per stem is injected into the stem.

**Note:** The combined total for all treatments must not exceed 10.6 quarts of this product per acre. At 6 milliliters per stem, 10.6 quarts will treat approximately 1600 stems per acre.

**Non-food Tree, Shrub, and Vine Production Sites**

This product may be used for weed control prior to planting or around established ornamentals, or any woody tree, shrub, or vine species, including arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce or yew, growing in plant nurseries, on Christmas tree farms, or on other non-food tree production site.

UNLESS OTHERWISE DIRECTED, DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be taken to avoid contact of spray, drift or mist with foliage or bark of desirable ornamental species.

**TYPES OF APPLICATION:** Site Preparation, Post-directed, Trim-and-edge, Wiper Application

**Site Preparation**

This product may be used prior to planting any tree, shrub, or vine, including Christmas tree species, in a nursery or production setting.

**Wiper Applications**

110/  
135

This product may be used through wick or other suitable wiper applications to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the "Selective Equipment" section of this label for further information about the proper use of wiper applicators.

**Greenhouse/Shadehouse**

This product may be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off until after the application has dried.

**Ornamentals**

**Post-directed, Trim-and-edge**

This product may be used as a post-directed spray around established woody ornamental species such as arborvitae, azalea, boxwood, crabapple, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, privet, pine, spruce and yew. This product may also be used to trim and edge around trees, buildings, sidewalks and road, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT TO BE USED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

**Site preparation**

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

**Parks, Recreational and Residential Areas**

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around trees, fences, paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

**Railroads**

All of the instructions in the "Non-crop and Industrial Use Sites" section apply to railroads.

**Bare ground Ballast and Shoulders, Crossings, and Spot treatment**

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

**TANK MIXTURES:** This product may be tank mixed with the following products for ballast, shoulder, spot, bare ground and crossing treatments provided that the specific product is registered for use on such sites. Refer to the product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient listed below:

- |           |              |
|-----------|--------------|
| ARSENAL   | KROVAR I DF  |
| ATRAZINE  | OUST         |
| DICAMBA*  | OUST XP      |
| ESCORT    | OUTRIDER     |
| ESCORT XP | SAHARA DG    |
| GARLON3A  | SIMAZINE     |
| GARLON 4  | SPIKE™ 80 DF |
| HYVAR™X   | TELAR DF     |

HYVAR XL

TRANSLINE

VELPAR DF

VELPAR L

2,4-D

\*This product plus dicamba tank mixtures may not be applied by air in California.

**Brush Control**

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4 to 10 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 3/4 to 2 percent solution of this product when using high-volume spray-to-wet applications. Apply a 5 to 10 percent solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products for enhanced control of woody brush and trees:

ARSENAL

GARLON 4

TRANSLINE

ESCORT

KERNITE

VANQUISH

ESCORT XP

TORDON K

VELPAR DF

GARLON 3A

TORDON 22K

VELPAR L

**Ground and Aerial Application to Brush and Chaparral in California Only**

Repeat treatments may be necessary to control weeds regenerating from underground parts or seeds.

Nonionic surfactants that are labeled for use with herbicides may be used to improve wetting of foliage. Do not reduce rates of KULL 41 S when adding surfactant. Read and carefully observe surfactant rates, cautionary statements, and other information appearing on the surfactant label.

**TIMING OF APPLICATION:** Apply this product as a broadcast spray when plants are actively growing for partial control of undesirable vegetation listed on this label. Best results are obtained when application is made in the spring to early summer when brush species are at a high moisture content and flowering.

This product may be used as directed for:

- Aid to burning treatment to establish and maintain fuel breaks
- Establishing fire perimeters and black lines
- Aid to prescribed burning
- Along fire roads and rights-of-way

**USE INSTRUCTIONS:** Apply 2 quarts of this product per acre for partial control of the following emerged brush and chaparral species:

Ceanothus

Sage

Ceanothis spp

Salvia spp

Chamise

Scrub oak

*Adenostoma fasciculatum*

*Quercus dumosa*

Make ground application in 3 to 40 gallons of total spray solution per acre.

Make aerial application (helicopter only) in 3 to 15 gallons of total spray solution per acre.

Avoid direct application to any body of water.

**AVOID DRIFT—DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.**

**Bermudagrass release**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 1 to 3 pints of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpet creeper
Fescue, tall	Vaseygrass

This product may be tank-mixed with Oust or Oust XP. If tank-mixed, use no more than 1 to 3 pints of this product with 1 to 2 ounces of Oust or Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust or Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Poorjoe
Broomsedge	Raspberry
Dallisgrass	Trumpet creeper
Dewberry	Vaseygrass
Dock, curly	Vervain, blue
Dogfennel	

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season are not to be used, since severe injury may occur.

**Roadsides**

All of the instructions in the "Non-crop and Industrial Use Sites" section apply to roadsides.

**Shoulder treatments**

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

**Guardrails and other obstacles to mowing**

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

**Spot treatment**

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

**Tank mixtures**

This product may be tank-mixed with the following products for shoulder, guardrail, spot and bare ground treatments provided that the specific product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statement and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a single generic active ingredient listed below:

Atrazine  
Dicamba\*  
Escort  
Escort XP  
Endurance  
Krovar I DF  
Oust  
Landmark II MP  
Velpar DF

Oust XP  
Outrider  
Pendimethalin  
Plateau  
Plateau DG  
Ronstar 50 WSP  
Landmark MP  
Velpar L

Sahara DF  
Surflan AS  
Surflan WDG  
Telar DF  
2,4-D  
Crossbow L  
Gallery 75DF  
Landmark XP  
Poast

\*This product plus dicamba tank mixtures may not be applied by air in California.

See the "Non-crop and Industrial Use Sites" section of this label for instructions for tank mixing.

**Release of Bermudagrass or Bahiagrass**

**Dormant applications**

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring green up. This product may also be tank-mixed with Outrider or Oust for residual control. Tank mixtures of this product with Oust may delay green up.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4 to 6-leaf stage.

Apply 8 to 64 fluid ounces of this product in a tank mixture with 3/4 to 1 1/3 ounces Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 8 to 64 fluid ounces of this product per acre alone or in a tank mixture with 1/4 to 1 ounce per acre of Oust. Apply the directed rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Oust per acre on Bermudagrass and no more than 0.5 ounce of Oust per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

**Actively growing Bermudagrass**

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1 to 3 pints of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seed head formation. These rates will also provide partial control of the following perennial species:

- |                  |                 |
|------------------|-----------------|
| Bahiagrass       | Johnsongrass    |
| Bluestem, silver | Trumpet creeper |
| Fescue, tall     | Vaseygrass      |

This product may be tank mixed with Outrider for control or partial control of Johnsongrass and other weeds

listed in the Outrider label. Use 8 to 30 fluid ounces of this product with 3/4 to 1 1/3 ounces of Outrider. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 6 inches in height.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seed head stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpetcreeper
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season are not to be used, since severe injury may occur.

**Actively growing Bahiagrass**

For suppression of vegetative growth and seed head inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seed head emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider label in actively growing bahiagrass. Apply 1 1/2 to 4 3/4 fluid ounces of this product with 3/4 to 1 1/3 ounces of Outrider per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well established bahiagrass.

A tank mixture of this product plus Oust may be used. Apply 6 fluid ounces of this product plus 0.25 ounce of Oust per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

**Rangelands**

This product will control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands, pastures, and industrial sites. Preventing weed seed production is critical to the successful control of annual grassy weeds invading these perennial grass sites. Follow-up applications in sequential years can eliminate most of the viable seeds. Delay grazing in the treated area to allow desirable perennials to grow, flower and re-seed the area.

**Bromus:** This product may be used to control or suppress downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*), cheatgrass (*Bromus secalinus*), cereal rye and jointed goatgrass found in rangelands pastures and industrial sites. Apply 8 to 16 fluid ounces of this product per acre on a broadcast basis.

For best results, allow treatment to coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Make applications to the same site each year until seed banks are depleted and the desirable perennial grasses can become re-established on the site.

**Medusahead:** To control or suppress medusahead, apply 16 fluid ounces of this product per acre at the 3-leaf stage when plants are actively growing. Delaying applications beyond this stage will result in reduced or unacceptable control. Repeat applications in subsequent years may be necessary to eliminate the seedbank before re-establishing desirable perennial grasses. Applications may be made in the fall or spring.

Applications may be made using ground or aerial equipment. Aerial applications for these uses may be made

using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre.

**Spot Treatment, Wiper Application:** This product may be applied in rangeland, pastures or industrial sites as a spot treatment, or over the top of desirable grasses using wiper applications to control tall weeds. Applications may be repeated in the same area at 30-day intervals.

For spot treatments or wiper application methods using rates of 3 quarts of this product per acre or less, the entire site or any portion of it may be treated. When spot treatments or wiper applications are made using rates above 3 quarts of this product per acre, no more than 10 percent of the total site may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting feed.

**Utility Sites**

In utilities, this product may be used along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities.

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product may also be used in preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

For control of herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher rates.

**TANK MIXTURES:** This product may be tank-mixed with the following products for use on utility sites, provided that the specific product used is labeled for use on these sites. Refer to the individual product labels for approved sites and application rates.

2,4-D <sup>1</sup>	Oust XP
Arsenal	Outrider
atrazine <sup>1</sup>	pendimethalin <sup>1</sup>
Barricade 65WG	Plateau
dicamba <sup>1</sup>	Ronstar 50WP
diuron <sup>1</sup>	Sahara
Endurance	simazine <sup>1</sup>
Escort	Surflan AS
Escort XP	Surflan WDG
Garlon 3A <sup>2</sup>	Telar DF
Garlon 4 <sup>3</sup>	Transline
Krenite	Vanquish
Krovar I DF	Velpar DF
Oust	Velpar L

<sup>1</sup> Tank mixtures with products containing this single generic active ingredient may be made provided the specific product is registered for this use.

<sup>2</sup> Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray incompatibility problems.

<sup>3</sup> For side trimming treatments, use this product alone or in a tank mixture with Garlon 4.

**Grass Seed or Sod Production**

This product may be used in grass seed and sod production for preplant, at-planting, preemergence, removal of established stands, renovation, site preparation, shielded spraying, wiper application, spot treatment, and creating rows in annual ryegrass.

**Preplant, Preemergence, At-Planting, Removal of Established Stands, Renovation, Site Preparation**

This product controls most existing vegetation for purposes of renovating turf or forage grass seed areas or for establishing turfgrass grown for sod. It may also be used to destroy remaining undesired grass vegetation when production fields are converted to alternate species or crops. Make applications before, during, or after planting, or for renovation purposes. For maximum control of existing vegetation, delay planting to determine if any re-growth from escaped underground plant parts occurs. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the herbicide spray. Where repeat treatments are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide best control. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates up to 5 quarts per acre may be used to totally remove established stands of tough to kill grass species.

Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow proper translocation into underground plant parts. If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Shielded Sprayers**

Apply 1 to 3 quarts of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aids in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields.

Contact of this product in any manner with desirable vegetation may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

**Wiper Application**

This product may be applied over the top of desirable grasses using wiper applicators for the control of tall weeds.

Contact of this product in any manner with desirable vegetation may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

**Spot Treatment**

Apply a 1.5-percent solution of this product using hand-held spray equipment to control weeds within established vegetation prior to heading of grasses grown for seed. Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

The crop sprayed in the treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted grass injury or destruction.

**Creating Rows in Annual Ryegrass**

Apply 1 to 2 pints of this product per acre. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height. Use the higher rate within this specified range when ryegrass is greater than 6 inches in height.

Set nozzle heights to allow the establishment of the desired row spacing. Use of low-pressure nozzles, or drop nozzles designed to target the application over a narrow band provide the best results.

Take care not to spray or allow spray to drift outside target area in order to avoid unwanted grass destruction.

**To the extent consistent with applicable law, grower assumes all responsibility for crop losses**

resulting from misapplication of this product.

**Pastures**

This product may be applied to any pasture grass (other than food crops in the *Gramineae* family), including bahiagrass, bermudagrass, bluegrass, brome, fescue, guineagrass, kikuyugrass, orchardgrass, pangola grass, ryegrass, timothy, and wheatgrass. Application can be made as a spot treatment, wiper application, preplant, preemergence, pasture renovation, or postemergent broadcast.

**Preplant, Preemergence, Pasture Renovation**

This product may be applied for weed control prior to planting or emergence of forage grasses. This product may also be applied to control perennial pasture species listed on this label prior to replanting.

If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

**Spot Treatment, Wiper Application**

This product may be applied in pastures as a spot treatment, or over the top of desirable grasses using wiper applicators to control tall weeds. Applications may be repeated in the same area at 30-day intervals.

For spot treatments or wiper application methods using rates of 3 quarts of this product per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 3 quarts of this product per acre, no more than 10 percent of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting for feed.

**Postemergent Weed Control (Broadcast Treatments)**

This product may be applied to pastures to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. Use of higher application rates will cause stand reductions. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 3 quarts of this product per acre per year onto pasture grasses except for renovation uses as described previously in this section.

**Weed Control in Dormant Pastures**

This product may be applied to dormant pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. For selective weed control, apply 12 to 16 fluid ounces of this product per acre using broadcast spray equipment in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. Use of higher application rates will cause stand reductions. No waiting period between application and grazing or harvesting for feed is required. Do not apply more than 3 quarts of this product per acre per year onto pasture grasses except for renovation purposes.

**WEEDS CONTROLLED**

Always use the higher rate of this product per acre within the allowable range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for directed rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense. This product may be used at 5 to 10 quarts per acre for enhanced results.

**Annual Weeds**

Use 1 quart per acre if weeds are less than 6 inches in height or runner length and 1.5 quarts to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seed head formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 1 to 2 percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

**WEED SPECIES**

- Annoda, spurred
- Barley\*
- Barnyard grass\*
- Bittercress\*
- Black nightshade\*
- Bluegrass, annual\*
- Bluegrass, bulbous\*
- Bassia, fivehook
- Brome, downy\*
- Brome, Japanese\*
- Browntop panicum\*
- Buttercup\*
- Carolina foxtail\*
- Carolina geranium
- Castor bean
- Cheatgrass\*
- Cheeseweed (*Malva parviflora*)
- Chervil\*
- Chickweed\*
- Cocklebur\*
- Cooperleaf, Hophornbeam
- Corn\*
- Corn speedwell\*
- Crabgrass\*
- Dwarf dandelion\*
- Eastern mannagrass\*
- Eclipta\*
- Fall panicum\*
- Falsedandelion\*
- Falseflax, smallseed\*
- Fiddleneck
- Field pennycress\*
- Filaree
- Fleabane, annual\*
- Fleabane, hairy (*Conyza bonariensis*)
- Fleabane, rough\*
- Florida pusley
- Foxtail\*
- Goatgrass, jointed\*
- Goosegrass
- Grain sorghum (milo)\*

Groundsel, common\*  
Hemp sesbania  
Henbit  
Horseweed/Marestail (*Conyza canadensis*)  
Itchgrass\*  
Johnsongrass, seedling  
Junglerice  
Knotweed  
Kochia  
Lambsquarters\*  
Little barley\*  
London rocket\*  
Mayweed  
Medusahead\*  
Morningglory (*Ipomoea* spp.)  
Mustard, blue\*  
Mustard, tansy\*  
Mustard, tumble\*  
Mustard, wild\*  
Oats  
Pigweed\*  
Plains/Tickseed coreopsis\*  
Prickly lettuce\*  
Puncturevine  
Purslane, common  
Ragweed, common\*  
Ragweed, giant  
Red rice  
Russian thistle  
Rye\*  
Ryegrass\*  
Sandbur, field\*  
Shattercane\*  
Shepherd's purse\*  
Sicklepod  
Signalgrass, broadleaf\*  
Smartweed, ladythumb\*  
Smartweed, Pennsylvania\*  
Sowthistle, annual  
Spanish needles  
Speedwell, purslane\*  
Sprangeletop\*  
Spurge, annual  
Spurge, prostrate\*  
Spurge, spotted\*  
Spurry, umbrella\*  
Starthistle, yellow  
Stinkgrass\*  
Sunflower\*  
Teaweed/Prickly sida  
Texas panicum\*  
Velvetleaf  
Virginia copperleaf  
Virginia pepperweed\*  
Wheat\*  
Wild oats\*

Witchgrass\*  
Woolly cupgrass\*  
Yellow rocket

\*When using field broadcast equipment (aerial applications or boom sprayers using flat fan nozzles) these species will be controlled or partially controlled using 1 pint of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

**Perennial Weeds**

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the allowable range.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed spot treatments, apply a 5 to 10 percent solution of this product.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	1	2
Alligatorweed*	4	1.5
Anise (fennel)	2-4	1-2
Bahiagrass	3-5	2
Beach grass, European ( <i>Ammophila arenaria</i> )	-	5
Bentgrass*	1.5	2
Bermudagrass	5	2
Bermudagrass, water (knotgrass)	1.5	2
Bindweed, field	4-5	2
Bluegrass, Kentucky	2	2
Blueweed, Texas	4-5	2
Brackenfern	3-4	1-1.5
Bromegrass, smooth	2	2
Bursage, woolly-leaf	-	2
Canarygrass, reed	2-3	2
Cattail	3-5	2
Clover, red, white	3-5	2
Dallisgrass	3-5	2
Dandelion	3-5	2
Dock, curly	3-5	2
Dogbane, hemp	4	2
Fescue (except tall)	3-5	2
Fescue, tall	1-3	2
German ivy	2-4	1-2
Guineagrass	3	1
Horsenettle	3-5	2
Horseradish	4	2
Iceplant	2	1.5-2
Jerusalem artichoke	3-5	2
Johnsongrass	2-3	1
Kikuyugrass	2-3	2
Knapweed	4	2
Lantana	-	1-1.25
Lespedeza	3-5	2
Milkweed, common	3	2

Muhly, wirestem	2	2
Mullein, common	3-5	2
Napiergrass	3-5	2
Nightshade, silverleaf	2	2
Nutsedge;purple, yellow	3	1-2
Orchardgrass	2	2
Pampasgrass	3-5	1.5-2
Paragrass	3-5	2
Pepperweed, perennial	4	2
Phragmites*	3-5	1-2
Poison hemlock	2-4	1-2
Quackgrass	2-3	2
Redvine*	2	2
Reed, giant	4-5	2
Ryegrass, perennial	2-3	1
Smartweed, swamp	3-5	2
Spurge, leafy*	-	2
Sweet potato, wild*	-	2
Thistle, artichoke	2-3	1-2
Thistle, Canada	2-3	2
Timothy	2-3	2
Torpedograss*	4-5	2
Trumpetcreeper*	2-3	2
Vaseygrass	3-5	2
Velvetgrass	3-5	2
Wheatgrass, western	2-3	2
*Partial control		

**Woody Brush and Trees**

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 5 to 10 percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

<b>Weed Species</b>	<b>Broadcast Rate (QT/A)</b>	<b>Hand-Held Spray-to-Wet % Solution</b>
Alder	3-4	1-1.5
Ash*	2-5	1-2
Aspen, quaking	2-3	1-1.5
Bearclover (Bearmat)*	2-5	1-2
Beech*	2-5	1-2
Birch	2	1
Blackberry	3-4	1-1.5

Blackgum	2-5	1-2
Bracken	2-5	1-2
Broom; French, Scotch	2-5	1.5-2
Buckwheat, California*	2-4	1-2
Cascara*	2-5	1-2
Catsclaw*	--	1-1.5
Ceanothus*	2-5	1-2
Chamise*	2-5	1
Cherry; bitter, black, pin	2-3	1-1.5
Coyote brush	3-4	1.5-2
Deerweed	2-5	1
Dogwood*	2-5	1-2
Elderberry	2	1
Elm*	2-5	1-2
Eucalyptus	--	2
Gorse*	2-5	1-2
Hasardia*	2-4	1-2
Hawthorn	2-3	1-1.5
Hazel	2	1
Hickory*	2-5	1-2
Honeysuckle	3-4	1-1.5
Hornbeam, American*	2-5	1-2
Kudzu	4	2
Locust, black*	2-4	1-2
Madrone resprouts*	--	2
Manzanita*	2-5	1-2
Maple, red	2-4	1-1.5
Maple, sugar	--	1-1.5
Monkey flower*	2-4	1-2
Oak; black, white*	2-4	1-2
Oak; post	2-4	1-1.5
Oak; northern, pin	2-4	1-1.5
Oak, Scrub*	2-4	1-1.5
Oak; Southern red	2-3	1-1.5
Peppertree, Brazilian (Florida holly)*	2-5	1-2
Persimmon*	2-5	1-2
Pine	2-5	1-2
Poison ivy	4-5	2
Poison oak	4-5	2
Poplar, yellow*	2-5	1-2
Redbud, eastern	2-5	1-2
Rose, multiflora	2	1
Russian olive*	2-5	1-2
Sage, black	2-4	1
Sage, white*	2-4	1-2
Sage brush, California	2-4	1
Salmonberry	2	1
Saltcedar*	2-5	1-2
Sassafras*	2-5	1-2
Sourwood*	2-5	1-2
Sumac; laurel, poison, smooth, sugarbush, winged*	2-4	1-2
Sweetgum	2-3	1-1.5
Swordfern*	2-5	1-2
Tallowtree, Chinese	--	1
Tan oak resprouts*	--	2
Thimbleberry	2	1

Tobacco, tree*	2-4	1-2
Toyon*	--	2
Trumpetcreeper	2-3	1-1.5
Vine maple*	2-5	1-2
Waxmyrtle, southern*	2-5	1-2
Willow	3	1
Yerbasenta*	--	2

\* Partial Control

Ritter Chemical LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise. To the extent consistent with applicable law, buyers and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

124/  
135

**Sublabel D: Conifer Release, Christmas Tree Applications, and Forestry Site Preparation**

# KULL 41 S

[Alternate Brand Names: KULL 41, Alecto 41S and Alecto 41, Alecto 41 UL, Alecto 41 HL, Lajj and Lajj Plus]

GROUP	9	HERBICIDE
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Systemic Weed Control

<sup>†</sup>Quality Assured

### Complete Directions for Use

EPA Reg. No. 9468-33

EPA Est. No. 9468-OR-001; 9468-TX-001; 9468-TX-002; 47258-TX-01, 82784-GTM-001; 75460-CHN-001; 72949-CHN-001; 81346-CHN-001; 75464-CHN-001; 81347-CHN-001; 81889-CHN-001

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.

Read the entire label before using this product.

Use only according to label instructions.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Not all products directed on this label are registered for use in California. Check the registration status of each product in California before using.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

<sup>†</sup> Ritter Chemical LLC warrants that this product conforms to the chemical description on the label.

**Container Label Statement:**

THIS IS AN END-USE PRODUCT. RITTER CHEMICAL LLC DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. IT IS INTENDED THAT REPACKAGING BE ONLY IN ACCORDANCE WITH A RITTER CHEMICAL LLC REPACKAGING OR TOLL REPACKAGING AGREEMENT.

### INGREDIENTS

**ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt..... 41.0%

**OTHER INGREDIENTS:**..... 59.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

### IMPORTANT PHONE NUMBERS

125/  
135

IN CASE OF EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL ASSISTANCE, DAY OR NIGHT, CALL 1-800 - 764 - 7661

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear: long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves.

**Keep Out of Reach of Children**

**CAUTION**

<b>FIRST AID</b>	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as KULL 41 S, EPA Reg. No.9468-33. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 9 a.m. to 5 p.m. After 5:00 p.m. call your poison control center at 1-800-222-1222.</p>	
<p><b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

Manufactured by:  
Ritter Chemical LLC  
P. O. Box 430974  
Houston, Texas 77243  
(Formulated in the USA)

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

**PHYSICAL OR CHEMICAL HAZARDS**

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

**DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.** This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

**Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.**

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protection equipment (PPE) and restrict entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical resistant gloves greater than 14 mills in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, and shoes plus socks.

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (40 CFR Part 170) for agricultural pesticides. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

### STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**Pesticides Storage:** Keep container closed to prevent spills and contamination. Store this product in a cool dry place out of reach of children and domestic animals. Store in original container only. Do not allow this product to freeze.

**Pesticide Disposal:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

**Empty Container Disposal:**

**[FOR NONREFILLABLE CONTAINERS LESS THAN 5 GALLONS:]**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**[FOR NON-REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**[FOR REFILLABLE CONTAINERS GREATER THAN 5 GALLONS:]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### CONIFER RELEASE

For release, apply only where conifers have been established for more than one year. Vegetation should not be disturbed prior to treatment or until visual symptoms appear after treatment. Symptoms of treatment are slow to appear, especially in woody species treated late in fall. Injury may occur to conifers treated for release, especially where spray patterns overlap or higher rates are applied or when applications are made during periods of active conifer growth. [For KULL 41, KULL 41 HL, Alecto 41 and Alecto 41 HL only – formulations fully loaded or with 7.5% surfactant] **Do not use additional surfactant with conifer release applications.**

[For KULL 41 and Alecto 41 UL –formulations without the surfactant] This product requires the use of a nonionic surfactant. When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of the surfactant may enhance performance. Examples of when to use the higher surfactant rate include, but are not limited to: hard-to-control woody brush, trees, and vines, high water volumes, adverse environmental conditions, tough-to-control weeds, weeds under stress, surfactants with

less than 70 percent active ingredient, tank mixes, etc. These surfactants should not be used in excess of 1 quart per acre when making broadcast applications. Always read and follow the manufacturer's surfactant label recommendations for best results. Carefully observe all cautionary statements and other information appearing in the surfactant label. When applied as recommended under conditions described, this product controls annual and perennial weeds listed in the label booklet. Do not reduce rates of this product when adding surfactant. Do not add buffering agents or pH adjusting agents to the spray solution when (Product brand name) is the only pesticide used.

Applications must be made after formation of final conifer resting buds in the fall prior to initial bud swelling in spring. Some autumn colors on desirable deciduous species are acceptable provided no major leaf drop had occurred. Use the following rates for conifer release to control or partially control the weeds listed in the "WEEDS CONTROLLED" section of this label.

**Aerial Application**

This product may be applied using aerial spray equipment for conifer release treatments. See the "Application Equipment and Techniques" part of the "MIXING, ADDITIVES, and APPLICATION INSTRUCTIONS" section of this label booklet for information on how to properly spray this product by air.

DO NOT APPLY THIS PRODUCT BY AIR TO RIGHTS-OF-WAY SITES IN THE STATE OF CALIFORNIA.

**For release of the following conifer species:**

**Douglas fir**  
*Pseudotsuga menziesii*

**Pines\***  
*Pinus spp.*

**Fir**  
*Abies spp.*

**Spruce**  
*Picea spp.*

**Hemlock**  
*Tsuga spp.*

\* Includes all species except eastern white pine, loblolly pine or slash pine.

Apply 1.5 to 2 quarts of this product per acre except in Washington and Oregon, west of the crest of the Cascade Mountains. For spring treatments west of the crest of the Cascade Mountains, apply 1 quart of this product per acre before conifer bud swell for control of annual weeds. For fall treatments in Washington and Oregon, west of the crest of the Cascade Mountains, apply 1 to 1.5 quarts of this product per acre before any major leaf drop of deciduous species.

For release of western hemlock, apply 1 quart of the product per acre.

**For release of the following species:**

**Loblolly pine**  
*Pinus teada*

**Slash pine**  
*Pinus elliottii*

**Eastern white pine**  
*Pinus strobus*

**Late season application** – Apply 1.5 to 2 quarts of this product in a minimum of 5 gallons of spray solution per acre during early autumn. Applications made prior to September 1 or when conditions are conducive to rapid growth of conifers will create the potential for increased injury in the form of tip and/or needle burn. Injury may decrease with later applications. Some autumn colors are acceptable at time of application. Apply prior to frost or leaf drop of undesirable plants. Applications made according to label directions will release loblolly pine, eastern white pine and slash pine by reducing competition from the following species:

**Ash**  
*Fraxinus spp.*

**Oak:**  
**Black**  
*Quercus velutina*

**Cherry:**

**Post**

<b>Black</b> <i>Prunus serotina</i>	<i>Quercus stellata</i>
<b>Pin</b> <i>Prunus pensylvanica</i>	<b>Southern Red</b> <i>Quercus falcata</i>
<b>Elm</b> <i>Ulmus spp.</i>	<b>White</b> <i>Quercus alba</i>
<b>Hawthorn</b> <i>Crataegus spp.</i>	<b>Persimmon</b> <i>Diospyros spp.</i>
<b>Locust, black</b> <i>Robinia psuedoacacia</i>	<b>Poplar, yellow</b> <i>Liriodendron tulipifera</i>
<b>Maple, Red</b> <i>Acer rubra</i>	<b>Sassafras</b> <i>Sassafras albidum</i>
<b>Sourwood</b> <i>Oxydendrum ardoreum</i>	<b>Sumac: Winged</b> <i>Rhus copallina</i>
<b>Sumac: Poison</b> <i>Rhus glabra</i>	<b>Sweetgum</b> <i>Liquidambar styraciflu</i>

Apply only to those sites where woody brush and trees listed in this label constitute the majority of the undesirable species.

**KULL 41 UL plus OUST Mixtures for Conifer Release from Herbaceous Weeds**

To release loblolly pines from herbaceous weeds, tank mixtures of this product with Oust will provide control of annual weeds listed in the "WEEDS CONTROLLED" section of this and the Oust label, and partially controlled the perennial weeds listed below.

Apply 16 to 24 fluid ounces of this product with 2 to 4 ounces of Oust in 10 to 30 gallons of spray solution per acre. Make application to actively growing weeds as a broadcast spray over the top of the young loblolly pines.

This product plus Oust tank mixtures may not be applied by air in California.

This tank mixture may be applied using aerial equipment. When applying by air, use the allowable rate in 5 to 15 gallons of spray solution per acre.

For control of annual weeds below 12 inches in height (or runner length on annual vines), use the lower rates of both products. Use the higher rates of both products when annual weeds are in more advanced stages of growth and approaching flower or seed formation.

Use the higher rates of both products for partial control of the following perennial weeds. Use the lower rates for suppression of growth.

<b>Bahiagrass</b> <i>Paspalum notatum</i>	<b>Johnsongrass*</b> <i>Sorghum halepense</i>
<b>Broomsedge</b> <i>Andropogon virginicus</i>	<b>Poorjoe*</b> <i>Diodia teres</i>
<b>Dock, curly</b> <i>Rumex crispus</i>	<b>Trumpetcreeper**</b> <i>Campsis radicans</i>
<b>Dogfennel</b> <i>Eupatorium capilliforium</i>	<b>Vaseygrass</b> <i>Paspalum urvillei</i>
<b>Fescue, tall</b> <i>Festuca arundinacea</i>	<b>Vervain, blue</b> <i>Verbena hastata</i>

- \* Control at the higher rate
- \*\* Suppression at higher rate only

Pine damage may occur or can be accentuated if treatment takes place when young trees are under stress from drought, flood water, insects or disease.

Read and observe the cautionary statements and all other information appearing on the labels of all herbicides used.

**Note to user:** This product may not be used in areas where adverse impact on federally designated endangered/threatened plant or aquatic species is likely.

Prior to making applications, the user of this product must determine that no such species are located in or immediately adjacent to the area to be treated.

**BROADCAST APPLICATIONS IN CHRISTMAS TREE PLANTATIONS**

**NOTE:** IF IMPROPERLY APPLIED, THIS PRODUCT HAS THE POTENTIAL TO CAUSE SEVERE CHRISTMAS TREE INJURY. FOLLOW ALL LABELED DIRECTIONS.

This product may be applied as a broadcast spray over established Christmas trees. Ensure that adequate buffers are maintained to prevent drift onto nearby desirable crops or vegetation. Read the entire "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label booklet for additional application precautions.

This application is approved for the following Christmas tree species:

- Douglas fir (*Pseudotsuga menziesii*)
- Fir species (*abies* spp.)
- Spruce species (*Picea* spp.)

Applications may be made only after trees have completed at least a full growing season since planting or transplanting. Applications should not be made within 1 full year prior to tree harvest.

Applications may only be made in the fall after the formation of final conifer resting buds. Final resting buds must be fully hardened and in the dormant stage. Applications made at any other time may result in unacceptable Christmas tree injury.

Avoid spray pattern overlap, as injury may occur.

Apply 1 quart of this product per acre in 5 to 30 gallons of water per acre.

This product may be used at rates from 1 to 2 quarts per acre in some areas. Consult your local Ritter Chemical representative or (product brand name) supplier for specific recommendations and restrictions if you require rates greater than 1 quart per acre.

Drift control additives may increase Christmas tree injury and are not to be used.

The use of other herbicides tank mixed with (product brand name) are not to be used since severe Christmas tree injury may result.

**FORESTRY SITE PREPARATION**

This product may be used for the control or partial control of woody brush, trees and herbaceous weeds in forestry. This product is also labeled for use in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product may be used for use in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

For applications using different types of equipment, see "APPLICATION RATES" table in "HAND-HELD EQUIPMENT" section of this label.

**TANK MIXTURES:** Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all

information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

**NOTE:** For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any labeled rate of this product may be used in a tank mix with the following products for forestry site preparation.

Product	Broadcast Rate
Arsenal Applicators Concentrate	2 to 16 fluid ounces per acre
Escort™	0.5 to 3.5 ounces per acre
Chopper™	4 to 30 fluid ounces per acre
Garlon 4	1 to 4 quarts per acre
Oust™	1 to 4 ounces per acre

Product	Spray-To-Wet Rates
Arsenal Applicators Concentrate	0.03 to 0.5 percent by volume

Product	Low Volume Directed Spray Rates
Arsenal Applicators Concentrate	0.1 to 0.5 percent by volume

For control of the herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control wood brush and trees, use the higher directed rates.

Read the "Limit of Warranty and Liability" in the label booklet for (product brand name) before using. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

Escort and Oust are trademarks of E.I. duPont de Nemours & Co. Inc.

Garlon is a trademark of Dow AgroSciences

Chopper is a trademark of BASF Corporation.

Ritter Chemical LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyers and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise. To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

132/135

**Sublabel E: Residential Use Label**

# KULL 41 S

[Alternate Brand Names: KULL 41, Alecto 41S and Alecto 41, Alecto 41 UL, Alecto 41 HL, Lajj, Lajj Plus]

GROUP	9	HERBICIDE
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*Systemic Weed Control*

*†Quality Assured*

Complete Directions for Use

EPA Reg. No. 9468-33

EPA Est. No. 9468-OR-001; 9468-TX-001; 9468-TX-002; 47258-TX-01, 82784-GTM-00175460-CHN-001; 72949-CHN-001; 81346-CHN-001; 75464-CHN-001; 81347-CHN-001; 81889-CHN-001

**AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.**

Read the entire label before using this product.

Use only according to label instructions.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Not all products directed on this label are registered for use in California. Check the registration status of each product in California before using.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

† Ritter Chemical LLC warrants that this product conforms to the chemical description on the label.

**INGREDIENTS**

**ACTIVE INGREDIENT:**

\*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt..... 41.0%

**OTHER INGREDIENTS:**..... 59.0%

\*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

**IMPORTANT PHONE NUMBERS**

IN CASE OF EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL ASSISTANCE, DAY OR NIGHT, CALL 1-800 - 764 - 7661

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wear: long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves.

**Keep Out of Reach of Children**

**CAUTION**

<b>FIRST AID</b>	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as KULL 41 S, EPA Reg. No.9468-33. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 9 a.m. to 5 p.m. After 5:00 p.m. call your poison control center at 1-800-222-1222.</p>	
<p><b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

Manufactured by:  
 Ritter Chemical LLC  
 P. O. Box 430974  
 Houston, Texas 77243  
 (Formulated in the USA)

**DOMESTIC ANIMALS:** This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

**ENVIRONMENTAL HAZARDS**

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**Mixing Instructions**

**Tank Sprayer** (plastic, aluminum, fiberglass, plastic-lined steel or stainless steel). **Do not mix, store, or apply in galvanized or unlined steel sprayer.**

- Add 13 fl oz to 1 gallon of water.
- Spot treat or spray evenly over 300 sq. ft.

**Hose-End Sprayer**

**For large areas consider using the Ortho® Dial 'n Spray™**

- Set dial to 13 oz.
- To sprayer jar add 13 fl oz. for each 300 sq. ft. **DO NOT** add water.
- Spray evenly over measured area.

- After spraying, unused product can be poured back into its original container.

1 fl oz = 2 Tbs

For easy kill weeds such as seedlings add 7 fl oz to 1 gallon of water.

Do not apply with a galvanized or unlined steel (except stainless steel) sprayer or through any irrigation system.

To clean sprayer after use, rinse sprayer and all sprayer parts with water 3 times. Spray rinse water on bare soil or gravel. After cleaning, sprayer may be used for other products.

#### **User Safety Recommendations**

- Clothing and protective equipment exposed to this product should be washed in detergent and hot water. Such items should be kept and washed separate from other laundry.
- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing immediately if product gets inside; then wash thoroughly and put on clean clothing.

#### **How to Apply**

- Spray the weeds or grasses you want to kill until thoroughly wet.
- When spot treating weeds around desirable plants, shield plants from drift with a piece of cardboard or plastic. If desirable plants are accidentally sprayed, rinse off immediately with water.

**IMPORTANT: Do not spray plants or grasses you like – they will die.** Not to be used for spot weed control in lawns since this product kills lawn grasses.

**Application Restrictions:** Do not apply this product in a way that will contact any person or pet, either directly or through drift. Only the person applying this product may be in the area during application.

#### **When to Apply**

- Apply when weeds are actively growing.
- For best results, apply during warm, sunny weather (above 60° F) to accelerate systemic movement from foliage to roots.
- Apply when air is calm to prevent drift to desirable plants.
- RAINPROOF™ Protection: Rain or watering within 30 minutes of application will NOT wash away effectiveness.

#### **Additional Tips**

##### **To Kill Vines**

- If vines are growing up poles, fences, or tree trunks with mature bark, cut vines to a height of 3 to 4 feet and spray vines thoroughly.
- If vines are climbing shrubs or tree trunks with green bark, cut vines at base and treat as directed for stumps or spray regrowth. If spraying regrowth, shield shrubs and green bark from spray drift with a piece of cardboard or plastic.

##### **To Kill Stumps**

- Cut living stump close to ground.
- Drive 4 to 5 holes into freshly cut stump.
- Immediately pour undiluted product into holes.

**IMPORTANT:** Some trees may share root system. Adjacent trees having a similar age, height and spacing may signal a shared roots system. Injury may occur to non-treated trees when one or more trees sharing common roots are treated.

### For Lawn Replacement

Use this product to kill lawn weeds before planting a new lawn.

- Skip one mowing before spraying.
- Use 13 fl oz per gallon of water for each 300 sq ft. Apply evenly over treatment area.
- If soil is dry, water before application and 2 to 3 days after application.
- If green patches remain after 7 days, reapply.
- Wait at least 3 days after last application to rake, till or replant with seed or sod.

### For Garden Plot Preparation

Use this product to kill weeds and grasses before planting flowers, fruits, vegetables, trees or shrub.

- If soil is dry, water before application and 2 to 3 days after application,
- Use 13 fl oz per gallon of water for each 300 sq ft. Apply evenly over treatment area.
- Wait 1 to 3 days after last application before planting garden, see **When To Replant** section for details.

### When to Replant

- All ornamental flowers, trees and shrubs may be planted **1 day after** application.
- Lawn grasses, herbs, vegetables (all), and fruits may be planted **3 days after** application.

### How it Works

This product enters plants through foliage and moves systemically to the roots, killing weeds by stopping the production of a substance found in plants. Any product not absorbed by plants will be deactivated after it hits the soil. Weeds usually yellow and wilt within hours with complete kill in 1 to 2 weeks.

## STORAGE AND DISPOSAL

**Pesticide Storage:** Store product in original container in a safe place away from direct sunlight.

**Disposal:** Nonrefillable container. Do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**Notice to Buyer:** To the extent consistent with applicable law, buyer assumes all responsibility for safety and use not in accordance with directions.